Always Innovating
South Texas ISD
RIO GRANDE VALLEY | GRADES 6-12

7001 E. EXPRESSWAY 83, MERCEDES, TX 78570
P: 956.565.2454
STISD.NET

CSP 27-020 South Texas ISD HVAC Project 2026-2027

Addendum #1

We are issuing this addendum to address the following:

1. This addendum is issued for the purpose of modifying the plans and specifications for South Texas ISD CSP 27-020 HVAC Projects 2026-2027. Pages 3-126
2. Copy of Pre-Bid Conference Signing Sheet - Page 127

Please, sign, date, and submit this addendum with your proposal response. We look forward to hearing from you.

Thank you.

South Texas ISD – Purchasing Department

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P: 956.565.2454
STISD.NET

CSP 27-020 South Texas ISD HVAC Project 2026-2027

Addendum # 1

ACKNOWLEDGEMENT OF ADDENDUM # 1

Company Name: _____

Company Representative: _____

Company Representative Signature: _____

Phone Number: _____

Date: _____

October 30, 2026
South Texas ISD – CSP 27-020
HVAC Projects 2026-2027

GOMEZ MENDEZ SAENZ, INC.
1150 PAREDES LINE RD.
BROWNSVILLE, TEXAS 78526
(956) 546-0110



ADDENDUM NO. 1

A. PURPOSE AND INTENT
This addendum is issued for the purpose of modifying the plans and specifications for *South Texas ISD CSP 27-020 HVAC Projects 2026-2027.*

This addendum shall become part of the contract, and all CONTRACTORS shall be bound by its content. All aspects of the specifications and drawings not covered herein shall remain the same. The General Conditions and the Special Conditions of the specifications shall govern all parts of the work and apply in full force to this Addendum.

I. CLARIFICATIONS:

1. All Re-Roofing work indicated in the below areas and described with in Construction Documents shall be performed by District preferred manufacturer:

   Garland Roofing
   Blake Dieste CSI, CDT
   Texas Gulf Coast / SW Louisiana Area Manager
   The Garland Company
   M: 832-488-4783
   Bdieste@garlandco.com

   Re-Roofing required where equipment is being provided with new curbs and where roof repair is required.

   Olmito: Roof penetrations and flashing for the condensing unit support.
   Edinburg:
   - Huges Bldg:
     - 4 DX RTUs Replacement
     - 1 DX RTU full removal
   - Kitchen:
     - 2 DX RTUs Replacement

MEP Addendum Items: Refer to attached information (123 Pages including cover sheets)

End of Addendum 1

1126 South Commerce
Harlingen, TX 78550
Off: (956) 230-3435
Fax: (956) 720-0830
www.ethoseng.net



October 30, 2026

STISD – HVAC Replacements

ADDENDUM NO. 1

A. PURPOSE AND INTENT

This addendum is issued for the purpose of modifying the plans for the project referenced above. This addendum shall become part of the contract and all contractors shall be bound by its content. All aspects of the specifications and drawings not covered herein shall remain the same. The General Conditions and the Special Conditions of the specifications shall govern all parts of the work and apply in full force to this addendum.

B. CLARIFICATIONS

1. Alternate #1 - existing above-ceiling space is congested, and clearances for ductwork removal and installation are limited. Include all labor and materials for temporary removal, support, protection, and reinstallation of ceiling tiles, grid, light fixtures, and other devices and components necessary to complete the work. Coordinate with affected trades and restore all disturbed components to their original condition and operation.

   After removing ceiling components to expose existing conditions, and before demolishing or fabricating ductwork, notify Ethos Engineering and coordinate an on-site review of the exposed ductwork, structure, and other above-ceiling systems. Incorporate this review into the construction schedule. Allow the engineer to review conditions and issue written clarifications or revised direction, if required, before proceeding with affected work.

   Before fabricating ductwork, thoroughly inspect existing conditions, field-verify dimensions and available clearances, and coordinate duct routing, access, and installation sequence. Submit coordinated shop drawings showing duct sizes, routing, elevations, transitions, supports, and clearances to existing systems and structure, demonstrating that the proposed ductwork will fit within the available space and deliver the design airflows. Do not fabricate ductwork until field verification and coordination are complete and shop drawings have been reviewed by the engineer. The engineer's site review does not relieve the contractor of field verification or coordination responsibilities. No additional compensation or time extensions will be allowed due to failure to verify these conditions or coordinate the work before fabrication.

2. Submittals for owner-prepurchased equipment are attached. Contractor shall assemble and install all components shipped loose with the equipment in accordance with manufacturer's instructions. Coordinate with the equipment vendor, Perry Mechanical Systems. Equipment is stored at each campus warehouse, at the same address where the associated work will be performed. Contractor shall coordinate access with owner and move equipment from the warehouse to its final installation location. Include all costs for loading, hauling, unloading, crane services, rigging, hoisting, required permits, and associated logistics. Protect equipment during handling, transportation, and installation.

C. SPECIFICATIONS

1. Section 230010 Summary of Mechanical Work: replace section on its entirety. See attached section.

D. DRAWINGS

1. Sheet Cover – Cover Sheet:
    a. Scope of work narrative was revised, see attached sheet.
2. Sheet ME2.00 Mechanical-Electrical General Notes, Legend, & Abbreviations.:
    a. Controls general notes were revised, see attached sheet.
3. Sheet ME3.02 STISD Health Professions - Reno Mechanical-Electrical Floor Plan:
    a. Pre-Purchased ACCU Schedule STISD Mercedes Principal Offices was revised, see attached sheet.
    b. Pre-Purchased Heat Pump Schedule STISD Mercedes Principal Offices was revised, see attached sheet.
4. Sheet ME4.01 STISD Medical Professions - Demo Mechanical-Electrical Floor Plan:
    a. Keyed note #4 was revised, see attached sheet.
5. Sheet ME4.02 STISD Medical Professions - Reno Mechanical-Electrical Floor Plan:
    a. Keyed note #2 was revised, see attached sheet
    b. Pre-Purchased Air Handling Unit Schedule STISD Olmito IDF Room was revised, see attached sheet.
    c. Pre-Purchased ACCU Schedule STISD Olmito IDF Room was revised, see attached sheet.

6. Sheet ME5.02 STISD Albert H. – Reno Mechanical – Electrical Floor Plan:
    a. Keyed note #4 was revised, see attached sheet.
    b. Pre-Purchased Edinburg STISD DX Rooftop Unit Schedule was revised, see attached sheet.
7. Sheet ME6.02 STISD Edinburg Library – Reno Mechanical – Electrical Floor Plan:
    a. Keyed notes #3, 4, 6, 7, 8, 9, 10, 11 were revised, see attached sheet.
    b. Keyed notes #12 & #13 were added, see attached sheet.
    c. Pre-Purchased CHW Air Handling Unit Schedule Edinburg Library Building was revised, see attached sheet.
8. Sheet ME7.02 STISD Edinburg Kitchen – Reno Mechanical – Electrical Floor Plan:
    a. (Pre-purchased) Edinburg STISD DX Roof Top Unit Schedule: Notes were revised, see attached sheet.
9. Sheet ME8.02 1st Floor Mechanical Plan World Scholar - Alternate:
    a. Mechanical Plan was revised, see attached sheet.
    b. Air Device Schedule was revised, see attached sheet.
10. Sheet ME9.01 Mechanical - Electrical Details:
    a. Detail #8 FCU Schematic Detail was revised, see attached sheet.

Olmito Campus Pre-Purchased Equipment Submittal

- DX Split System

Project Submittal

Project Name: Olmito Server Room
Project Number: 994114
Project Altitude: 500
Project Location:
, US

Customer: Perry Mechanical Systems LLC

Date: 11/3/2025
Quote: 657965
Roof Top Units: 0
Split Systems: 2

Table of Contents

Tag	Qty	Model	Description
SS-5T	1	37C90	ML17KC2-060-233A01
	1	25J62	CBK45UHVT-060 AHU/5.0Ton/230-1 R454B
SS-6 Tons	1	30Y46	EL072KCSST1Y-AC/6TON/230-3
	1	30Y30	EL072KASS-1YAHU/6T/230-3/3TD

Revit® Building Information Modeling (BIM) - Click here

AutoCAD® Templates - Click here

Project Submittal

Tag: SS-5T
Condenser: ML17KC2-060-233
Air Handler: CBK45UHVT-060 (R454B)

UNIT OVERVIEW

AHRI Reference - 217318835

Voltage	SEER2 EER2	Tons	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
208 Volt 3 Phase / 60Hz	14.7 11.2	5.0	57.7 / 45.8	55.3 / 43.4	2,030	0.5 / 0.5	75.0 / 62.5	/

COOLING

Cooling Performance		Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	57.7 / 45.8 MBH	Ambient	95.0	
Net Cooling (Ttl/Sens)	55.3 / 43.4 MBH	Condenser Ambient	95.0	--
Coil Moisture Removal	11.23 lb/hr	Entering	75.0	62.5
		Total Leaving – (Coil)		
		Total Leaving – (Unit)		

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	57.0 MBH	Cooling Stages	Two	Type	R-454B	Qty	2
		Compressor Qty	1	Cond Suction Line	1 1/8	Size	0.75 in.
				Cond Liquid Line	3/8	Pipe Thread	fpt
				Coil Suction Line	7/8		
				Coil Liquid Line	3/8		

HEATING

Heating Performance	Temperatures (DB/WB °F)

VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	2,030	Nominal Power	1.00 hp	Total	0.50
		Required Power	1.00 hp	Ext Supply	0.50
		Drive Type	ECM Variable Speed Constant Volume		
		Speed	Tap 3 Jumper (+)		
		Orientation	Upflow/Horizontal		

ELECTRICAL

Condenser		Air Handler	
Voltage	208 Volt 3 Phase / 60Hz	Voltage	208 Volt 1 Phase / 60Hz
MCA	23 amp	MCA (Ckt 1/2/3)	8 / 0 / 0 amp
MOCP	40 amp	MOCP (Ckt 1/2/3)	15 / 0 / 0 amp
Condenser Oper Range-Nom Volt	+/- 10%	AHU FLA	6.9amp
Oper Range-Nom Volt	+/- 10%		

ADDITIONAL DATA

Condenser		Air Handler	
Dimensions	32.25 in. x 32.25 in. x 43.25 in.	Dimensions	59.75 in. x 21.50 in. x 59.75 in.
Total Weight	246 lb	Total Weight	190 lb

Tag: SS-5T

Field Installed Accessories

Catalog Number	Qty	Description
24K41	1	CS7500 Comm'l Programmable T-stat 3 Cool Field Installed
50A93	1	Freezestat 5/8 Field Installed
X5867	1	Low Ambient Control (0 Deg) Speed Control Field Installed
45K32	1	Side Return Stand Field Installed
32X57	1	M2 ACE2025-3"-N FILTER BASE

Product Features

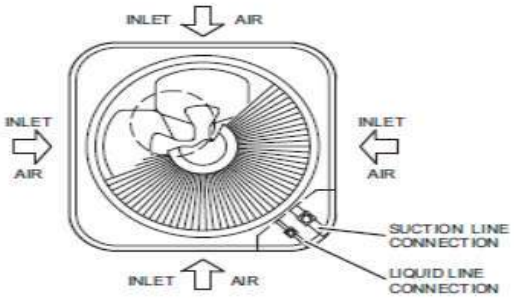
Cabinet
Heavy gauge galvanized steel cabinet
Heavy gauge galvanized steel cabinet
Upflow or Horizontal applications

Cooling System
Scroll Compressor
Quantum Coil / Fortified aluminum allow tube/enhanced fin coil
Hi-Capacity Drier factory installed in liquid line
Low Pressure Switch
Twin Coils assembled in an "A" configuration
Check and Expansion Valve is factory installed
Variable Speed (VSM) Direct Drive Blower Motor

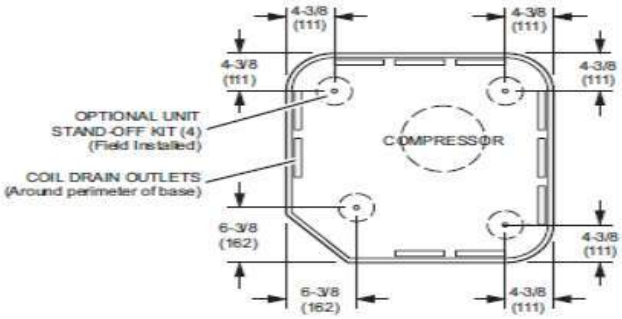
Approvals and Compliance
Only refrigerants in compliance with New York State regulations can be used in the state of New York

Warranty
Condenser Limited compressor warranty of 5 years for Residential Installations
Condenser See Limited Warranty Certificate included with unit for details
Condenser Limited compressor warranty of 5 years for Non-Residential Installations
Condenser Limited warranty on all covered components of 1 year in Non-Residential Installations
Coil See Limited Warranty Certificate included with unit for details
Coil Limited warranty on all other covered components of 1 year (Comm Use)

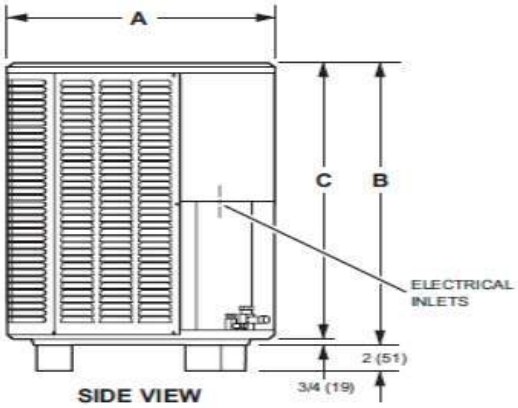
DIMENSIONS - UNIT



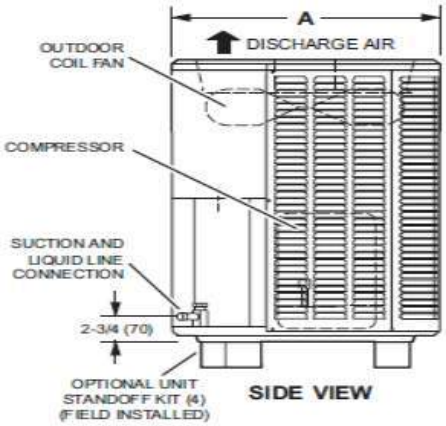
TOP VIEW



TOP VIEW BASE SECTION

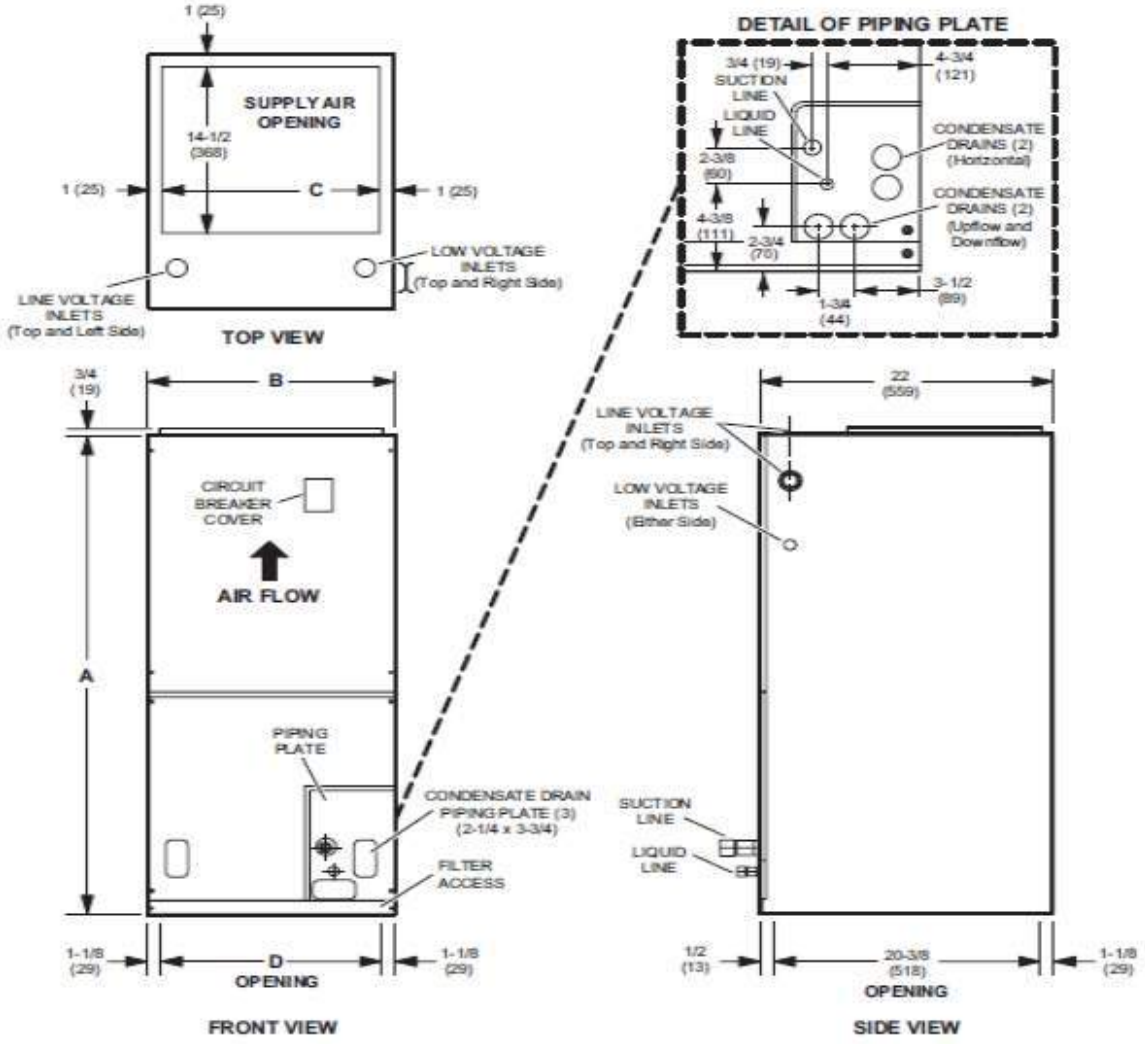


SIDE VIEW



SIDE VIEW

Size	A Width and Depth		B Height		C	
	inches	mm	inches	mm	inches	mm
036	28-1/4	718	33-3/4	857	33	838
048	32-1/4	718	33-3/4	857	33	838
060	32-1/4	819	43-1/4	1099	42-1/4	1073



Dimensions	018		024		030		036, 042		048		060	
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
A	43-1/2	1105	45-1/2	1156	47	1194	53-5/8	1362	55	1397	59-3/4	1518
B	18-1/2	470	18-1/2	470	18-1/2	470	21-1/2	546	21-1/2	546	21-1/2	546
C	16-1/2	419	16-1/2	419	16-1/2	419	19-1/2	495	19-1/2	495	19-1/2	495
D	16-1/4	413	16-1/4	413	16-1/4	413	19-1/4	489	19-1/4	489	19-1/4	489

24K41: COMFORTSENSE® 7500 COMMERCIAL 7 DAY PROGRAMMABLE THERMOSTAT

Accessory	✗
Duct Mount	✗
Wall Mount	✓
Outdoor	✗
Thermostat	✓
Temperature Sensing	✓
CO2 Sensing	✗
RH Sensing	✓
Light Sensing	✗
Pressure Sensing	✗
Smoke Sensing	✗
Communicating	✗
Display	✓



Precise, sophisticated control for conventional systems and heat pumps

The Lennox® ComfortSense line of programmable thermostats can help your customers manage their heating and cooling schedule, and their energy costs, without sacrificing comfort. The thermostat allows for the detection of economizer faults generated by the RTU's service relay, fulfilling FDD regulations and improving serviceability of Lennox rooftop units.

Energy Efficiency

- Programmable - 7-Day or 5-Day/2-Day - Versatile programming options offer custom comfort and energy savings
- Dual-fuel capability - Increases the efficiency of dual-fuel heating systems by automatically alternating between gas and electric operation
- One-Touch Away Mode - Turns down heating or cooling with one touch to save energy when the user is away
- Energy Reports - Show how often and how long the heating or cooling system has run

Enhanced Comfort

- Automatic changeover - decides between heating and cooling operation, depending on indoor temperatures
- Built-in temperature and humidity sensors
- Smooth Setback Recovery - pre-cools a space to reach the desired setpoint temperature as soon as the scheduled period begins

Reliable Performance

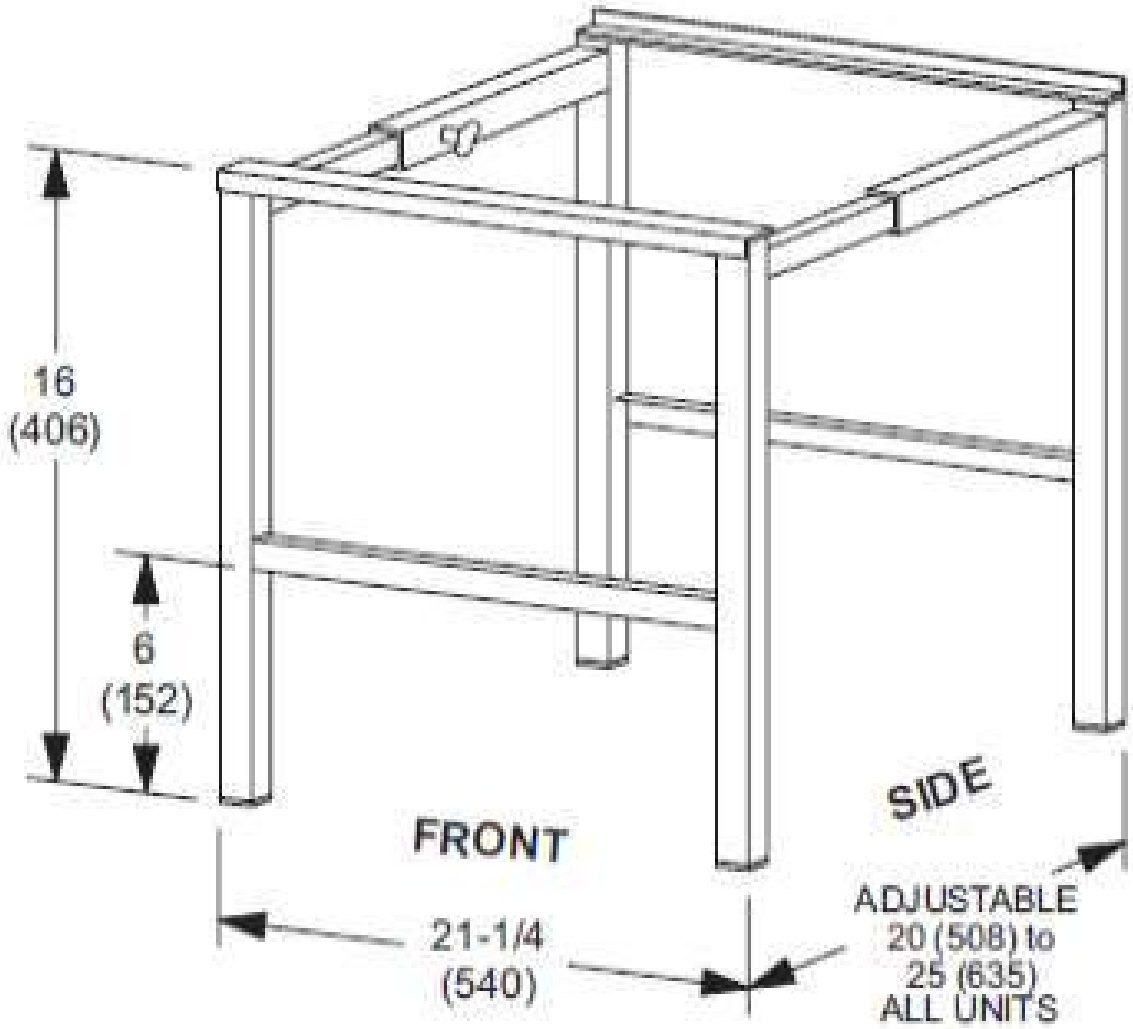
- Touchscreen display - large (4.3"), easy-to-use display with adjustable brightness
- Customizable reminders - allow you to set a series of service and parts replacement reminders which display on the home screen
- Filter Reminder - Reminds the user when it is time to change the filter
- Outdoor temperature display - requires optional outdoor sensor
- Universal thermostat - Works with conventional systems and heat pumps and supports up to 4 stages of heat and 3 stages of cooling
- Compatible with Lennox-brand non-communicating equipment and most other brands of heating and cooling equipment

SPECIFICATIONS - COMFORTSENSE7500	
Product Depth	7/8 IN
Product Height	3-5/16 IN
Product Width	4-5/16 IN
Gross Weight	0.6 LB
Hertz	50/60 Hz
Programs per Week	7 Day
Changeover	Auto changeover
Wi-Fi Enabled	No WiFi
Stages	Universal 4 Heat/3 Cool
Temperature Setting Range	• Heating - 45 to 90°F • Cooling - 45 to 99°F
Humidity Settings	• Operating range - 10 to 90% relative humidity • Humidity setpoint (Dehumidification) - 45 to 60% relative humidity, default 50%
Power Supply	24VAC (18 to 30VAC maximum), 50/60Hz
Clock Accuracy	± 10 minutes per year

ACCESSORIES		
Sensors/Accessories	Remote non-adjustable wall-mount 20k	**47W36**
	Remote non-adjustable wall-mount 10k	**47W37**
	Remote non-adjustable discharge air (duct mount)	**19L22**
	Outdoor temperature sensor	**X2658**


7:28 pm | fri
inside
60%
75°
heat-to
73°
cool-to
79°
outside
65°
away
holiday
heat / cool
LENNOX

SIDE RETURN UNIT STAND
(Upflow Only)



Mercedes Campus Pre-Purchased Equipment Submittal

- DX Split System (Heat Pump)

Project Submittal

Project Name: STISD Med High Heat Pump
Project Number: 996680
Project Altitude: 500
Project Location:
, US

Customer: Perry Mechanical Systems LLC

Date: 11/4/2025
Quote: 659455
Roof Top Units: 0
Split Systems: 2

Table of Contents

Tag	Qty	Model	Description
HP-10T	1	30Z74	EL120KPSST1G HP/10TON/460-3
	1	30Z03	EL120KASD-1G AHU/10T/460-3/STD
HP-7.5T	1	30Z71	EL090KPSST1G HP/7.5TON/460-3
	1	30Y34	EL090KASD-1G AHU/7.5T/460-3/STD

Revit® Building Information Modeling (BIM) - Click here

AutoCAD® Templates - Click here

Project Submittal

Tag: HP-7.5T
Condenser: EL090KPSST-460
Air Handler: EL090KASD-STD-460

UNIT OVERVIEW

AHRI Reference - 217286358

Voltage	EER IEER	Tons	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
460 Volt 3 Phase / 60Hz	11 14.1	7.5	96.6 / 86.7	90.8 / 80.8	3,600	0.5 / 0.8	78.0 / 65.0	54.8 / 54.8

COOLING

Cooling Performance		Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	96.6 / 86.7 MBH	Ambient	98.0	
Net Cooling (Ttl/Sens)	90.8 / 80.8 MBH	Condenser Ambient	98.0	--
Coil Moisture Removal	9.35 lb/hr	Entering	78.0	65.0
		Total Leaving – (Coil)	54.8	54.8
		Total Leaving – (Unit)	56.4	56.4

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	88.0 MBH	Cooling Stages	Two	Type	R-454B	Qty	1
		Compressor Qty	1	Cond Suction Line	1 1/8	Size	1 in.
				Cond Liquid Line	5/8	Pipe Thread	npt
				Coil Suction Line	(2) 7/8		
				Coil Liquid Line	(2) 5/8		

HEATING

Heating Performance		Temperatures (DB/WB °F)	
Output	31.4 MBH	HP Design	17.0
HP Output (High/Low)	87.0 / 50.0 MBH	Total Leaving	20.9
COP (High/Low)	3.40 / 2.25		
HP Output @ Design	50.0 MBH		
Electric Heat Size	10.0 kW		
HP - Heat Rise @ Design	12.9 °F		
Elec Heat - Heat Rise	8.1 °F		

VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	3,600	Nominal Power	2.00 hp	Total	0.81
		Required Power	1.83 hp	Ext Supply	0.50
		Drive Type	Multi-Stage Air Volume	Wet Coil	0.25
		Required RPM	871 rpm	Electric Heat	0.06
		RPM Range	796 - 1,030 rpm		
		Orientation	Upflow/Horizontal		

ELECTRICAL

Condenser		Air Handler	
Voltage	460 Volt 3 Phase / 60Hz	Voltage	460 Volt 3 Phase / 60Hz
MCA	17 amp	Elec Ht Voltage	460 Volt 3 Phase
MOCP	25 amp	MCA (Ckt 1/2/3)	20 / 0 / 0 amp
Condenser Oper Range-Nom Volt	+/- 10%	MOCP (Ckt 1/2/3)	25 / 0 / 0 amp
Oper Range-Nom Volt	+/- 10%	AHU FLA	3.4amp

ADDITIONAL DATA

Condenser		Air Handler	
Dimensions	43.62 in. x 60.12 in. x 48.75 in.	Dimensions	52.25 in. x 30.50 in. x 54.75 in.
Total Weight	425 lb	Total Weight	431 lb

Tag: HP-7.5T

Field Installed Accessories

Catalog Number	Qty	Description
24K41	1	CS7500 Comm'l Programmable T-stat 3 Cool Field Installed
38C15	1	10 KW Electric Heat 460 3Ph Field Installed
13T30	1	Coil / Hail Guard Combo Field Installed

Product Features

Cabinet

Heavy gauge galvanized steel cabinet
Copper Tube / Aluminum Fin Coils
Heavy gauge galvanized steel cabinet

Cooling System

Scroll Compressor
Hi-Capacity Drier factory installed in liquid line
Low Pressure Switch
Crankcase Heater
Twin Coils assembled in an "A" configuration
Check and Expansion Valve is factory installed

Approvals and Compliance

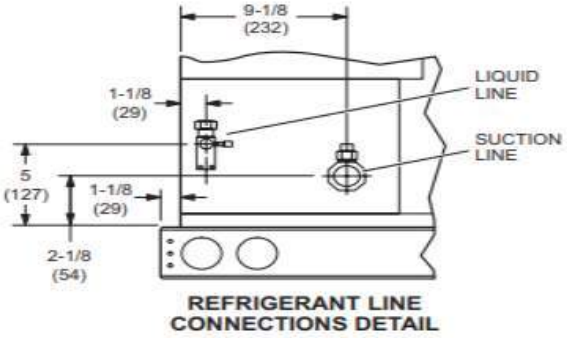
All models are fully charged and run tested to verify unit operation and functionality
Only refrigerants in compliance with New York State regulations can be used in the state of New York
All 6 ton models are AHRI Standard 340/360-2022 certified
All models are AHRI Standard 340/360-2022 certified
ETL listed
All models are ASHRAE 90.1-2025 compliant
All models meet DOE 2023 energy efficiency standards
Components are bonded for grounding to meet safety standards for servicing required by ETL, NEC and CEC
All models have been sound tested in accordance with test conditions included in AHRI Standard 270 or 370
ISO 9001 Registered Manufacturing Quality System

Warranty

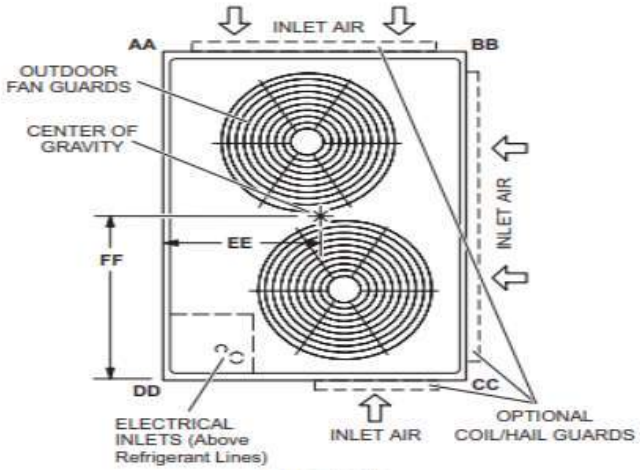
Condenser See Limited Warranty Certificate included with unit for details
Condenser Limited compressor warranty of 5 years for Non-Residential Installations
Condenser Limited warranty on all covered components of 1 year
Condenser Limited warranty on all covered components of 1 year in Non-Residential Installations
Coil See Limited Warranty Certificate included with unit for details
Coil Limited warranty on all other covered components of 1 year (Comm Use)

DIMENSIONS - UNIT

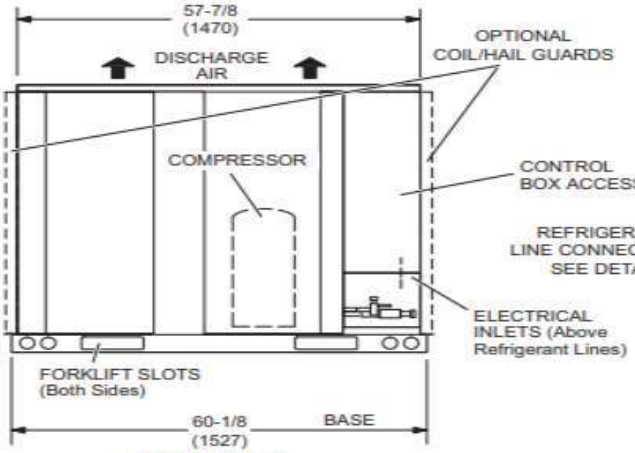
Model	CORNER WEIGHTS								CENTER OF GRAVITY			
	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
EL072KPSST	103	47	103	47	116	53	118	54	21-1/2	546	27	686
EL090KPSST	108	49	108	49	114	52	114	52	21-3/4	552	29	737
EL120KPSST	120	54	114	52	139	63	149	68	20	508	25-1/4	641



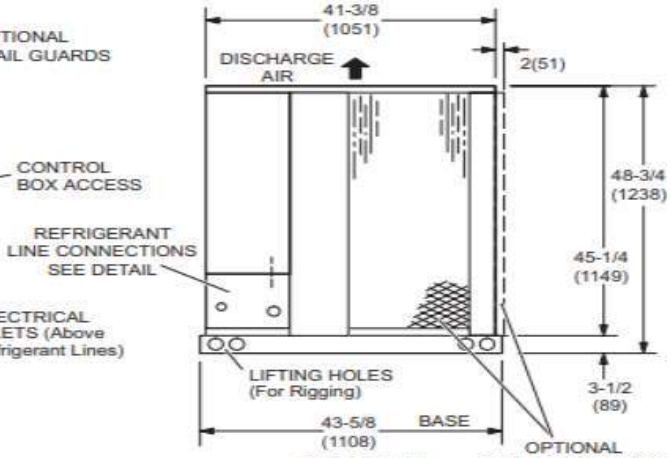
REFRIGERANT LINE CONNECTIONS DETAIL



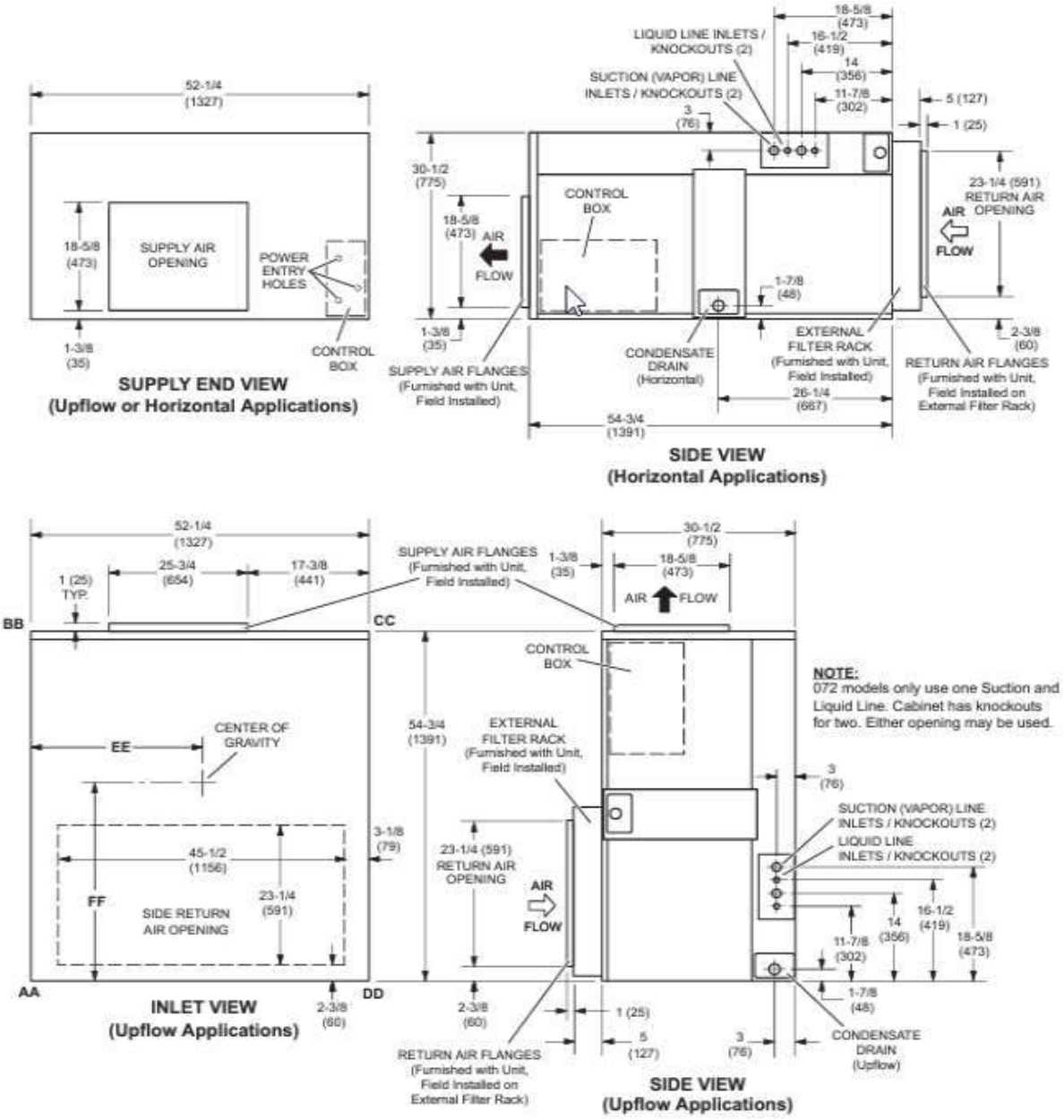
TOP VIEW



FRONT VIEW



SIDE VIEW


52-1/4 (1327)
18-5/8 (473)
SUPPLY AIR OPENING
POWER ENTRY HOLES
1-3/8 (35)
CONTROL BOX
SUPPLY END VIEW
(Upflow or Horizontal Applications)
18-5/8 (473)
16-1/2 (419)
14 (356)
11-7/8 (302)
LIQUID LINE INLETS / KNOCKOUTS (2)
SUCTION (VAPOR) LINE INLETS / KNOCKOUTS (2)
3 (76)
5 (127)
1 (25)
30-1/2 (775)
18-5/8 (473)
AIR FLOW
CONTROL BOX
23-1/4 (591) RETURN AIR OPENING
AIR FLOW
1-7/8 (48)
1-3/8 (35)
2-3/8 (60)
SUPPLY AIR FLANGES (Furnished with Unit, Field Installed)
CONDENSATE DRAIN (Horizontal)
EXTERNAL FILTER RACK (Furnished with Unit, Field Installed)
RETURN AIR FLANGES (Furnished with Unit, Field Installed on External Filter Rack)
26-1/4 (667)
54-3/4 (1391)
SIDE VIEW
(Horizontal Applications)
52-1/4 (1327)
1 (25) TYP.
25-3/4 (654)
17-3/8 (441)
BB
CC
SUPPLY AIR FLANGES (Furnished with Unit, Field Installed)
1-3/8 (35)
30-1/2 (775)
18-5/8 (473)
AIR FLOW
CONTROL BOX
NOTE:
072 models only use one Suction and Liquid Line. Cabinet has knockouts for two. Either opening may be used.
EE
CENTER OF GRAVITY
54-3/4 (1391)
EXTERNAL FILTER RACK (Furnished with Unit, Field Installed)
3 (76)
SUCTION (VAPOR) LINE INLETS / KNOCKOUTS (2)
LIQUID LINE INLETS / KNOCKOUTS (2)
3-1/8 (79)
45-1/2 (1156)
FF
SIDE RETURN AIR OPENING
23-1/4 (591)
23-1/4 (591) RETURN AIR OPENING
AIR FLOW
16-1/2 (419)
14 (356)
18-5/8 (473)
11-7/8 (302)
1-7/8 (48)
AA
DD
2-3/8 (60)
INLET VIEW
(Upflow Applications)
2-3/8 (60)
1 (25)
5 (127)
3 (76)
CONDENSATE DRAIN (Upflow)
RETURN AIR FLANGES (Furnished with Unit, Field Installed on External Filter Rack)
SIDE VIEW
(Upflow Applications)

24K41: COMFORTSENSE® 7500 COMMERCIAL 7 DAY PROGRAMMABLE THERMOSTAT

Accessory	✗
Duct Mount	✗
Wall Mount	✓
Outdoor	✗
Thermostat	✓
Temperature Sensing	✓
CO2 Sensing	✗
RH Sensing	✓
Light Sensing	✗
Pressure Sensing	✗
Smoke Sensing	✗
Communicating	✗
Display	✓



Precise, sophisticated control for conventional systems and heat pumps

The Lennox® ComfortSense line of programmable thermostats can help your customers manage their heating and cooling schedule, and their energy costs, without sacrificing comfort. The thermostat allows for the detection of economizer faults generated by the RTU's service relay, fulfilling FDD regulations and improving serviceability of Lennox rooftop units.

Energy Efficiency

- Programmable - 7-Day or 5-Day/2-Day - Versatile programming options offer custom comfort and energy savings
- Dual-fuel capability - Increases the efficiency of dual-fuel heating systems by automatically alternating between gas and electric operation
- One-Touch Away Mode - Turns down heating or cooling with one touch to save energy when the user is away
- Energy Reports - Show how often and how long the heating or cooling system has run

Enhanced Comfort

- Automatic changeover - decides between heating and cooling operation, depending on indoor temperatures
- Built-in temperature and humidity sensors
- Smooth Setback Recovery - pre-cools a space to reach the desired setpoint temperature as soon as the scheduled period begins

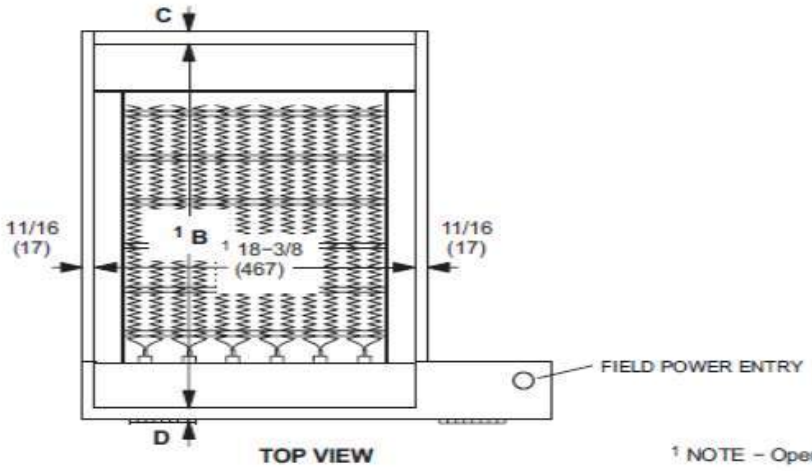
Reliable Performance

- Touchscreen display - large (4.3"), easy-to-use display with adjustable brightness
- Customizable reminders - allow you to set a series of service and parts replacement reminders which display on the home screen
- Filter Reminder - Reminds the user when it is time to change the filter
- Outdoor temperature display - requires optional outdoor sensor
- Universal thermostat - Works with conventional systems and heat pumps and supports up to 4 stages of heat and 3 stages of cooling
- Compatible with Lennox-brand non-communicating equipment and most other brands of heating and cooling equipment

SPECIFICATIONS - COMFORTSENSE7500	
Product Depth	7/8 IN
Product Height	3-5/16 IN
Product Width	4-5/16 IN
Gross Weight	0.6 LB
Hertz	50/60 Hz
Programs per Week	7 Day
Changeover	Auto changeover
Wi-Fi Enabled	No WiFi
Stages	Universal 4 Heat/3 Cool
Temperature Setting Range	• Heating - 45 to 90°F • Cooling - 45 to 99°F
Humidity Settings	• Operating range - 10 to 90% relative humidity • Humidity setpoint (Dehumidification) - 45 to 60% relative humidity, default 50%
Power Supply	24VAC (18 to 30VAC maximum), 50/60Hz
Clock Accuracy	± 10 minutes per year

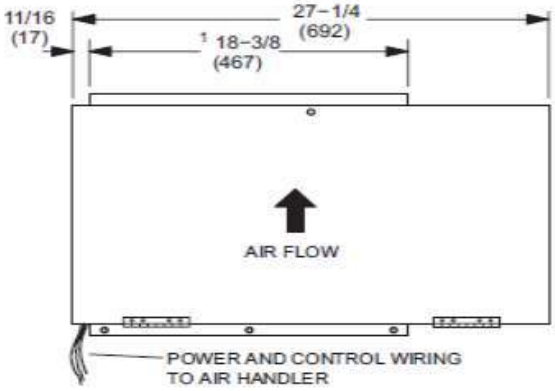
ACCESSORIES		
Sensors/Accessories	Remote non-adjustable wall-mount 20k	**47W36**
	Remote non-adjustable wall-mount 10k	**47W37**
	Remote non-adjustable discharge air (duct mount)	**19L22**
	Outdoor temperature sensor	**X2658**


7:28 pm | fri
inside
60%
75°
heat-to
73°
cool-to
79°
outside
65°
away
holiday
heat / cool
LENNOX

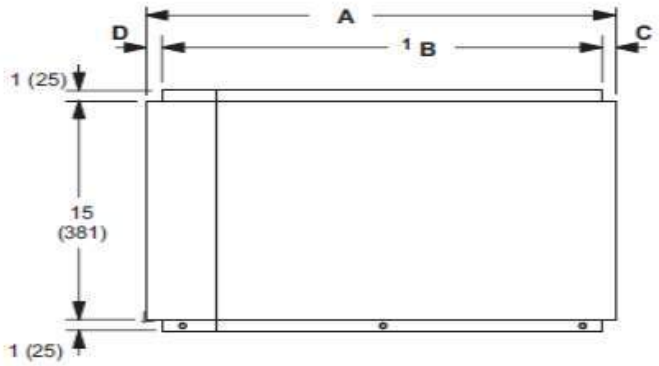


TOP VIEW

[1] NOTE – Openings same size top and bottom.



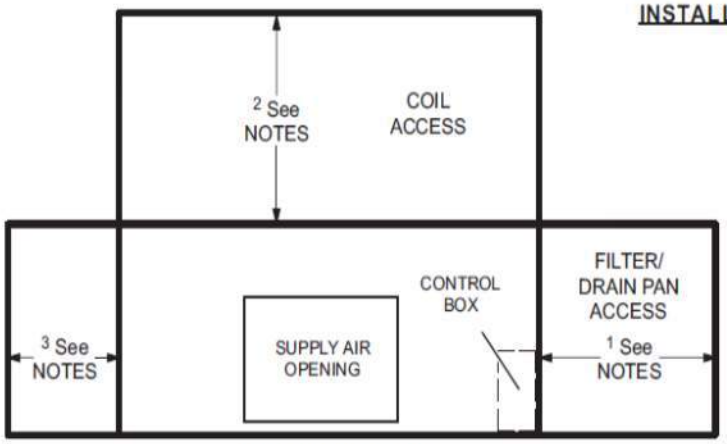
FRONT VIEW



SIDE VIEW

Air Handler Usage	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
EL072KA Thru EL150KA	27-1/8	689	25-1/2	648	13/16	21	13/16	21
EL180KA Thru EL240KA	56-3/4	1441	51-1/4	1302	1-1/2	38	4	102

UNIT CLEARANCES



TOP OR END VIEW
(Depending on Application)

INSTALLATION CLEARANCES (WITH ELECTRIC HEAT)

Cabinet – 0 in. (0 mm)
To Plenum – 0 in. (0 mm)
To Outlet Duct within 3 feet (914 mm) – 0 in. (0 mm)

RECOMMENDED SERVICE CLEARANCES

[1] **Filter Removal and Routine Maintenance:** (Upflow/Horizontal)
36 in. (914 mm)

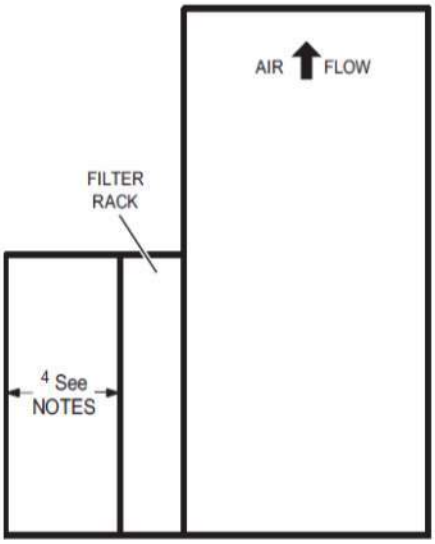
[1] **Service Clearance for Drain Pan Removal:** (Upflow/Horizontal)
EL072KA, EL090KA – 57 in. (1448 mm)
EL120KA, EL150KA – 73 in. (1854 mm)
EL180KA, EL240KA – 102 in. (2590 mm)

[2] **Coil Cleaning and LDS Service (Upflow):**
All models – 36 in. (914 mm)

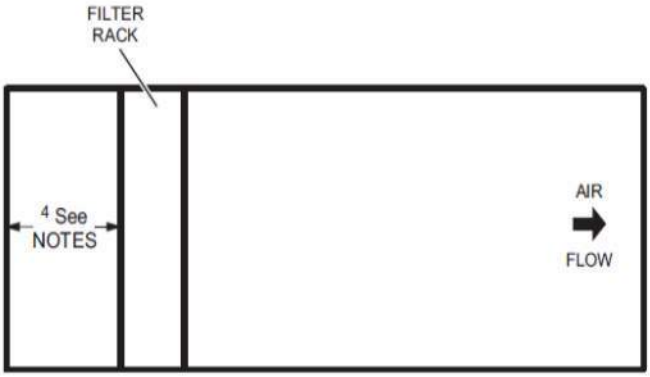
[3] **Alternate Coil Cleaning:**
Provide 36 in. (914 mm) on this side if top/rear access is obstructed

[3] **Alternate Drain/Refrigerant Line Location:**
Allow additional clearance if refrigerant or drain lines are routed from this side of cabinet

[4] **Freestanding Operation With Filter Rack But Without Return Air Duct**
All models - 24 in. (610 mm)



SIDE VIEW (Upflow)

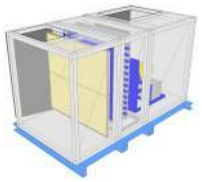


SIDE VIEW (Horizontal)

Edinburg Campus Pre-Purchased Equipment Submittal

- CHW AHUs Library
- DX RTUs Hughes Bldg and Kitchen
- VFDs

Job Information	Technical Data Sheet
Job Name	STISD - STPA Library
Date	November 13 2025
Submitted By	EA
Software Version	13.82
Unit Tag	AHU-1



Unit Overview

Model Number	Supply					
	Air Volume cfm	Static Pressure		External Dimensions		
		External inWc	Total inWc	Height in	Width in	Length in
CAH009GDGM	4000	2.00	3.37	48*	44*	84

**Not including base rails, coil connectors, drain connectors and control boxes.*

Unit

Model Number:	CAH009GDGM		
Approval:	ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)		
Outer Panel:	24 gauge G90 Galvanized Steel (unpainted)		
Liner:	24 gauge Galvanized Steel (unless noted per section)		
Insulation:	R-13 Injected Foam		
Unit Configuration:	Inline horizontal	**Drive (Handling) Location:**	Left
Base:	4" formed channel	**Wall Thickness:**	2 in
Altitude:	0 ft	**Parts Warranty:**	Standard One Year

Mixing Box

Component: 1 | Length: 26 in | Shipping Section: 1

Filter Data

Type	Efficiency	Nominal Face Velocity	Actual Face Velocity	Actual Face Area	Air Volume	Filter Loading
Pleated	MERV 8	360 ft/min	379 ft/min	10.6 ft²	4000 cfm	Side

Air Pressure Drop				Number of Filters	Height	Width	Depth
Clean Air	Mean Air	Dirty Air	User Spec				
0.16 inWc	**0.58** inWc	1.00 inWc	N/A	4	20 in	20 in	2 in

Custom Openings

Custom Opening	Location	Width	Height	Rainhood w/Screen
1	Top	22 in	18 in	None

Door

Location	Width	Opening
Drive side	22 in	Outward

Chilled Water Coil

Component: 2 | Length: 20 in | Shipping Section: 2

Coil Model	Total Capacity	Sensible Capacity	Number of Coils	Number of Rows	Fins per Inch	Tube Diameter	Tube Spacing (Face x Row)
5WH0806B	132262 Btu/hr	100288 Btu/hr	1	6	8	0.625 in	1.50 in x 1.299 in

Air Volume	Air Temperature				Coil Air Pressure Drop	Finned Height	Finned Length	Face Area	Face Velocity
	Entering		Leaving						
	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb					
4000 cfm	78.0 °F	65.0 °F	55.1 °F	54.0 °F	0.60 inWc	39 in	31 in	8.40 ft²	476 ft/min

Water

Entering	Leaving	Flow Rate	Pressure Drop	Velocity	Volume	Weight
45.0 °F	52.7 °F	34.40 gpm	4.90 ftHd	2.80 ft/s	8.0 gal	68.00 lb

Connection [Data Per Coil]				Min. Fin Surface Temp.	Min. Tube Wall Surface Temp.	Fouling Factor
Type	Size	Location	Material			
Threaded	2.00 in	Drive side	Carbon steel	45.0 °F	45.0 °F	0.000

Material				Drain Pan	Drain Side
Fin	Tube	Header	Case		
Aluminum .0075 in	Copper .020 in	Copper	Galv. steel	Stainless steel	Drive side

AHRI 410 Certification

Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org

Supply Fan

Component: 3 | Length: 38 in | Shipping Section: 3

Fan Performance

Air Volume	Static Pressure			Fan Energy Index(FEI)	Total Input Power	Fan Shaft Power	Speed		Outlet Velocity
	External	Total	Cabinet				Operating	Maximum	
4000 cfm	2.00 inWc	3.37 inWc	0.05 inWc	1.33	2.8 kW	3.38 BHP	2588 rpm	3650 rpm	N/A

Fan Data

Fan Type	Blade Type / Class	Nominal Fan Size	Quantity of Fans	Wheel Diameter	Material Type	Number of Blades	Discharge	Motor Location
Centrifugal - Plenum	Airfoil / 2	DDPL16	1	15.75 in	Aluminum	9	-	Behind Fan

Motor Data

Power	Electrical Supply	Speed	Efficiency	Enclosure	Frame Size	Supplier	Number of Poles	Lock Rotor Current	Full Load Current
5.0 HP	200/60/3 V/Hz/Phase	1750 rpm	Premium	ODP	184 T frame	Generic	4	108.19 A	15.20 A

Fan Options

Shaft Grounding Kit:	Provided	Isolator Type:	Spring

Custom Openings

Custom Opening	Location	Width	Height	Rainhood w/Screen
1	Top	22 in	28 in	None

Door

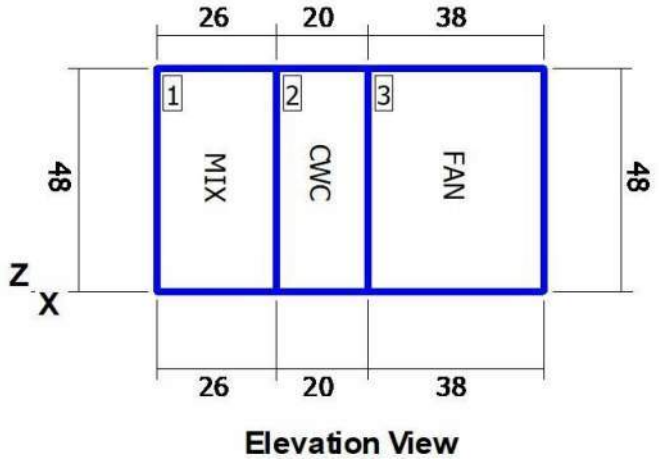
Location	Width	Opening
Drive side	30 in	Outward

Unit Sound Power (dB)

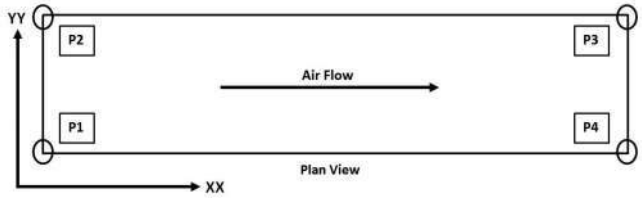
Type	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Radiated:	68	66	62	70	61	55	46	51
Unit Discharge:	78	76	78	89	83	83	81	73
Unit Return:	71	67	69	81	67	67	63	55

Shipping Section Details

Section	Length in	Weight lb	Corner Weights (lb)				Center of Gravity (in)		
			P1	P2	P3	P4	XX	YY	ZZ
1	26	256	59	59	69	69	14	22	24
2	20	486	124	140	119	103	9	23	24
3	38	555	165	165	113	113	15	22	21
Entire Unit	**84**	**1297**	**315**	**331**	**334**	**318**	**42**	**23**	**23**



Elevation View



NOTE: Special components aren't included in the corner weights and center of gravity data.

NOTE: Shipping weights listed do not include weight of water (listed in coil section(s) above.

Shipping Protection

Stretch Wrap

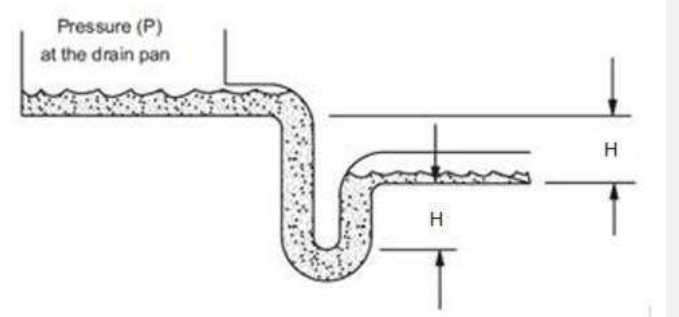
NOTE: Shipping protection is not meant for long term storage.

Supply Static Pressure Drop

Component	Option	Static Pressure Drop
Mixing Box	Filter	0.58 insWg
Mixing Box	Mixing Box	0.13 insWg
Chilled Water coil	Chilled Water coil	0.60 insWg
Supply Fan	Cabinet	0.05 insWg
External Static	External Static	2.00 insWg
Total Supply Fan Static		3.37 insWg

Minimum Recommended Drain Pan Trap Dimensions

Shipping Section	Component	H
2	Chilled Water coil	3.12



Dimensions provided as a courtesy and are recommended minimums only. Daikin is not responsible for supplying or designing drain pan traps and is not responsible for any damage caused by incorrect trap heights. The dimensions listed above should be reviewed and approved by a licensed plumbing professional.

This calculation is based on an assumption that 0.25 inches of the external static pressure is in the return duct and the remainder is in the supply duct. If actual conditions vary from this assumption then contact Applications for new trap height recommendations.

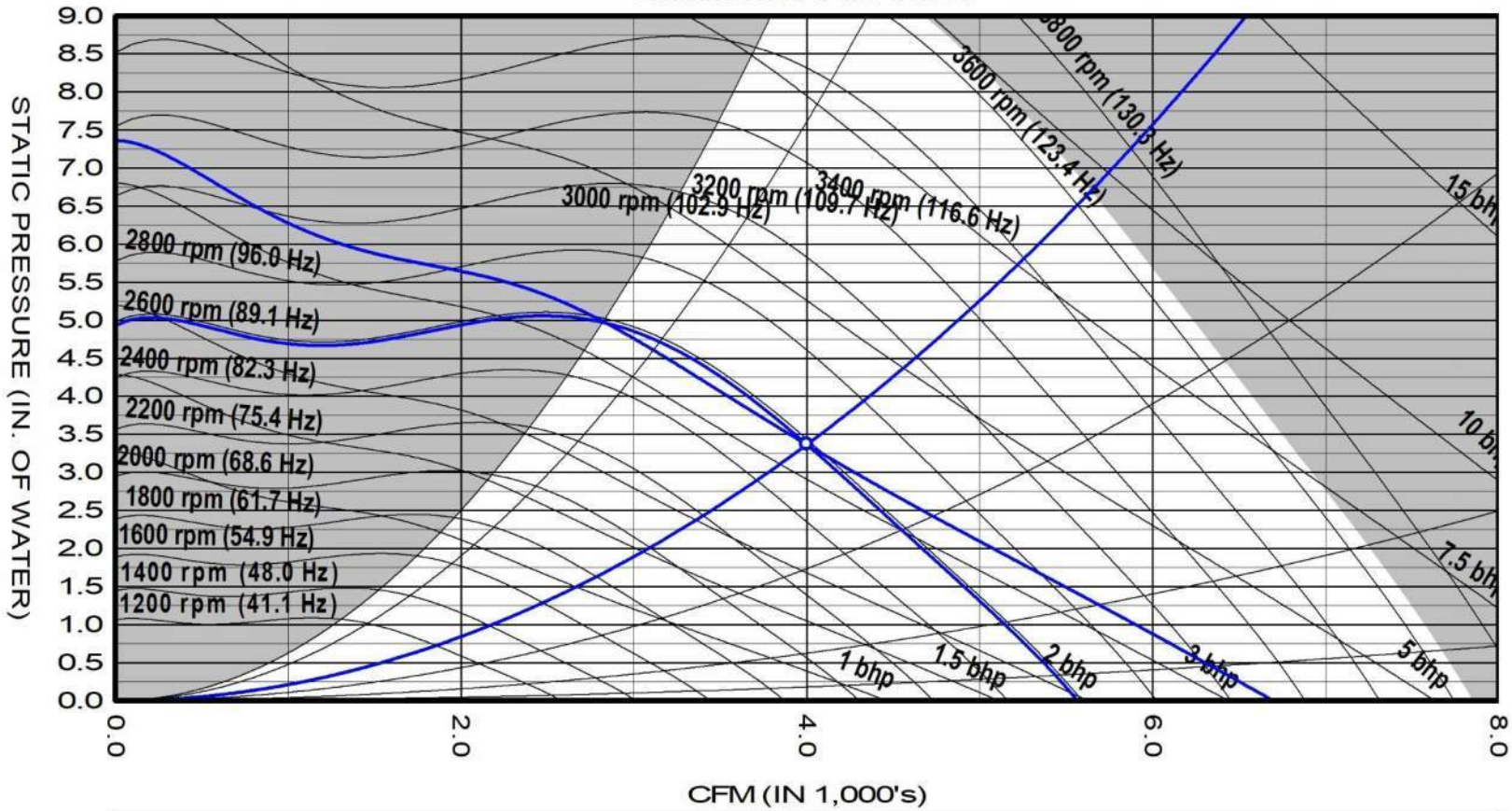
AHRI Certification

Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, which is based on AHRI Standard 430/431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third-party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.

Notes

Standard
1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2007. The approving authority is responsible for compliance of multi - component building systems.

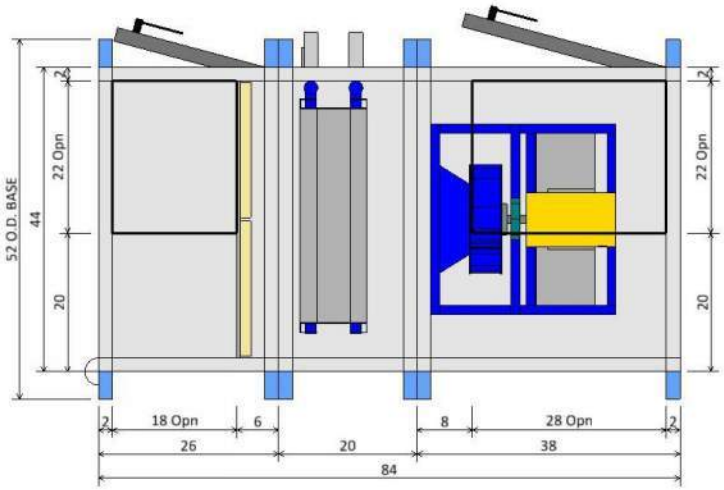
Daikin AHU Fan Curve



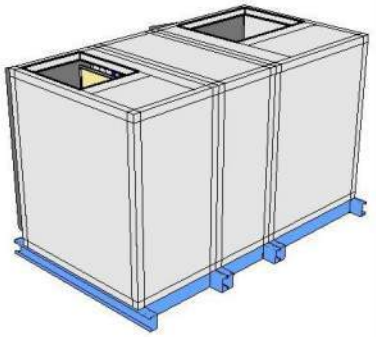
AF 16 DD PLENUM 9BL (100% Width) 1x1 Supply Fan at Standard Conditions					
Air volume	4000	cfm	Fan speed	2588	rpm
Total static	3.37	insWg	Max speed	3650	rpm
Fan Shaft Power	3.4	bhp	Efficiency	62.7	%
Approx VFD Setting	88.7	Hz	Motor Speed	1750	rpm
Fan Energy Index(FEI)	1.33				
Unit tagging	AHU-1		Date	November-13-2025	
Job name	STISD - STPA Library		Time	09:15	

AMCA CERTIFIED

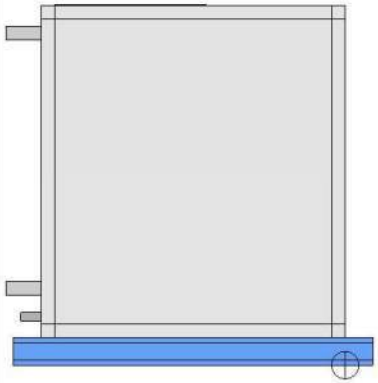
Supply fan performance is certified in accordance with the Central Station Air-Handling Unit Certification Program, which is based on AHRI Standard 430.



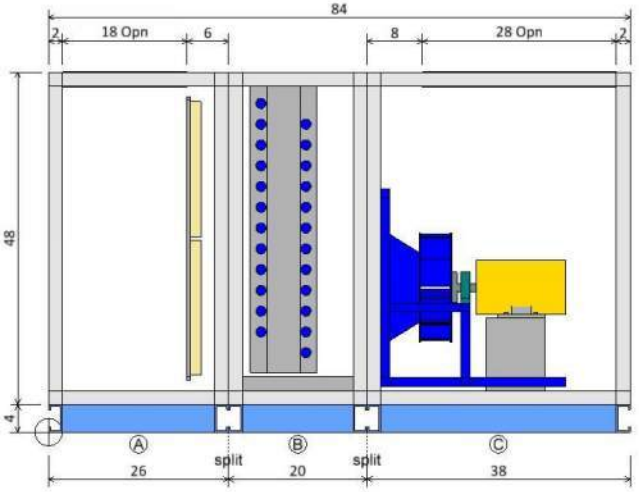
PLAN VIEW



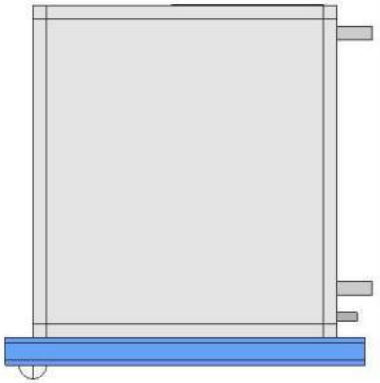
ISOMETRIC VIEW



FRONT END VIEW



ELEVATION VIEW

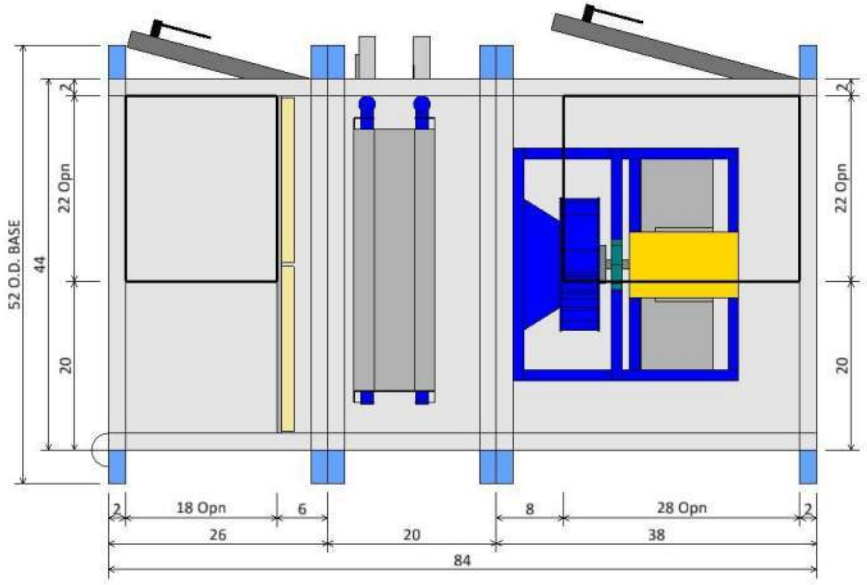


REAR END VIEW

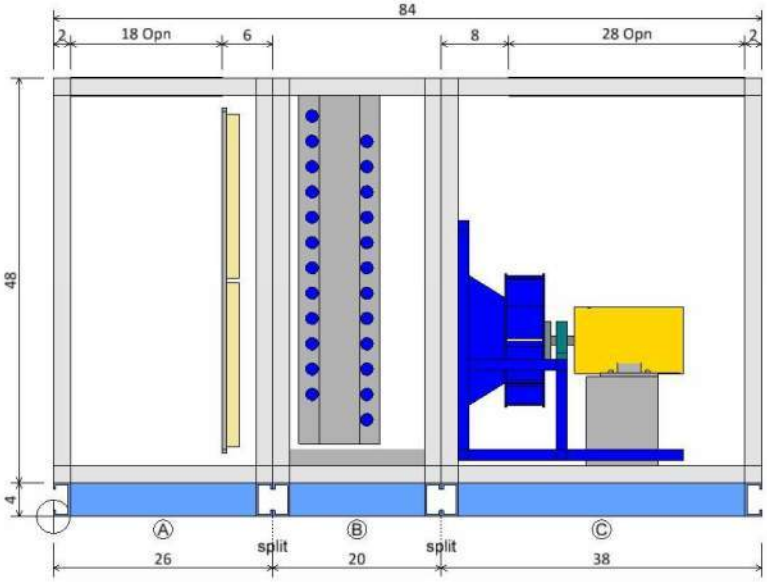
Plan/Elevation	Unit Tag: AHU-1			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH009GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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13600 Industrial Park Blvd, Minneapolis, MN 55441
www.DaikinApplied.com Software Version: 13.82

All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.



PLAN VIEW



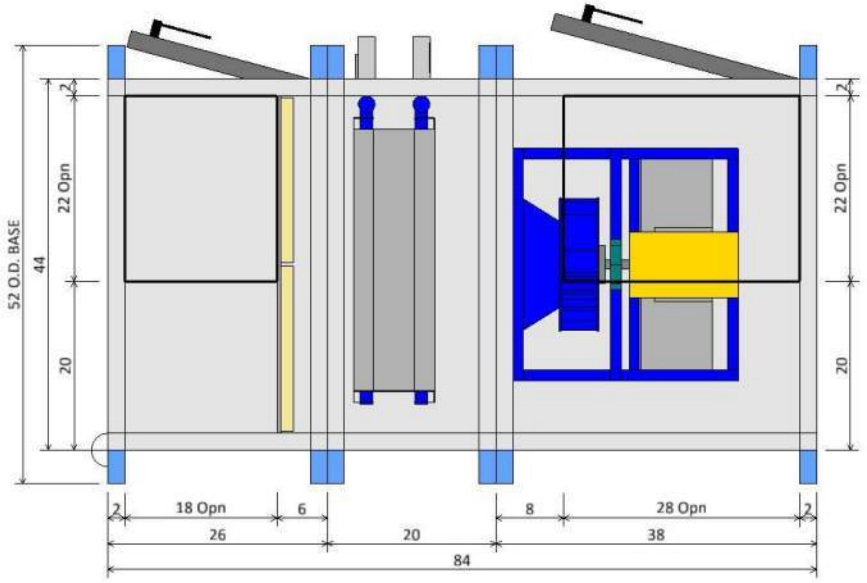
ELEVATION VIEW

Component Key		
Ⓐ	Mixing Box	
	Filter Type:	PerfectPleat HC M8
	Left Door (WxH):	22 ins x 44 ins
Ⓑ	Chilled Water coil	
	Coil Model:	5WH0806B
	Total Capacity:	132262.0 Btu/hr
Ⓒ	Supply Fan	
	Fan Type:	Centrifugal - Plenum
	Fan Size (Class):	16 (2)
	Air Flowrate:	4000.0 cfm
	T.S.P:	3.4 insWg
	Motor Power:	5.0 HP
	Left Door (WxH):	30 ins x 44 ins

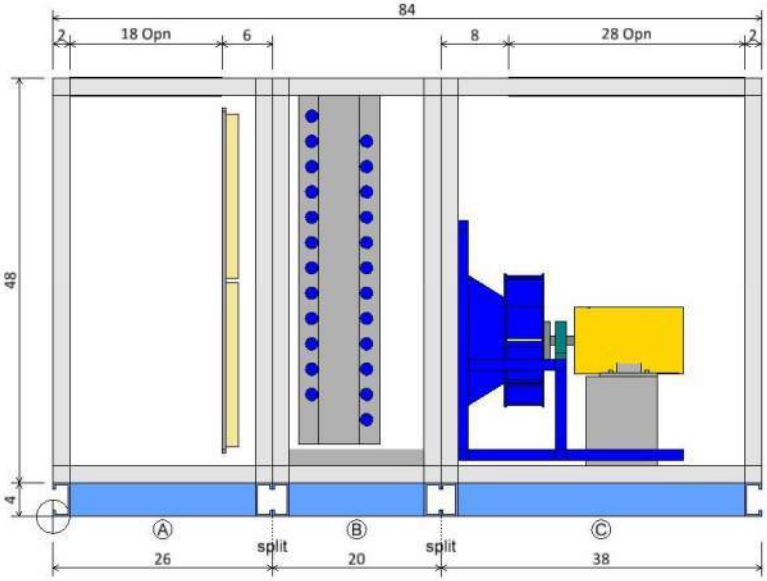
Plan/Elevation - No Ends	Unit Tag: AHU-1			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH009GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.



PLAN VIEW



ELEVATION VIEW

Component Key

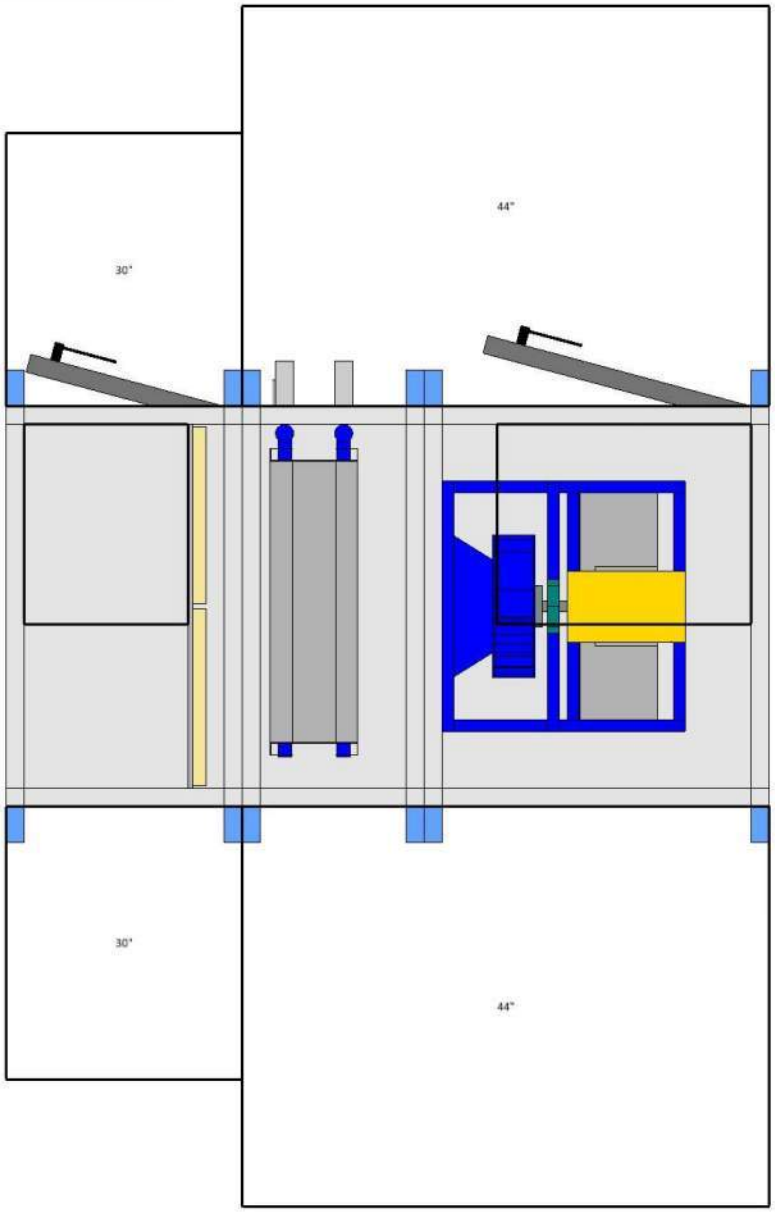
	Type	X	Y	Z	Wid	Hgt
Ⓐ	Mixing Box Opening	2.00	20.00	52.00	22.00	18.00
Ⓒ	Supply Fan Fan Discharge	54.00	20.00	52.00	22.00	28.00

Note: Dimensions are measured from the origin point.
Note: Openings with or without dampers are recessed into the unit by approximately 1.75 in.

Opening/Damper Connections	Unit Tag: AHU-1			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH009GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.



PLAN VIEW

Notes

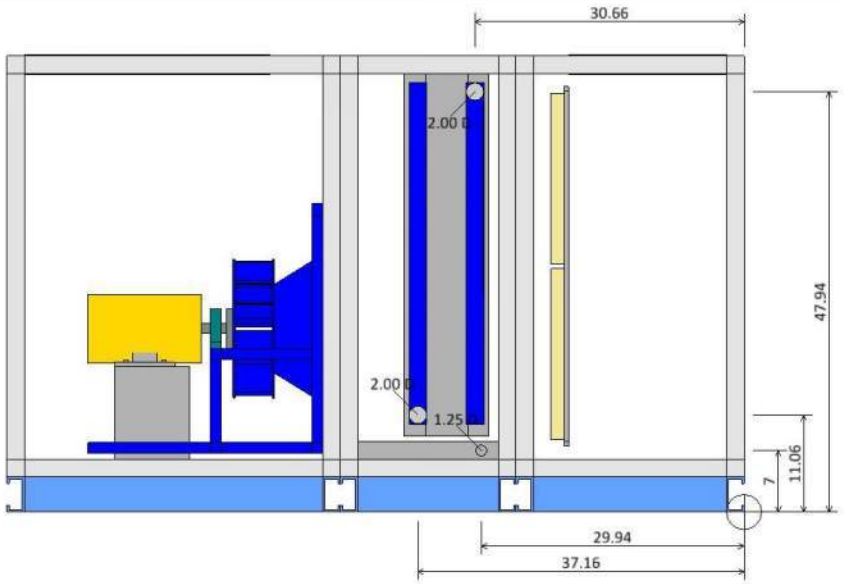
Check local electrical component service clearance codes for specific distances.

Access is only required on one side of the unit.

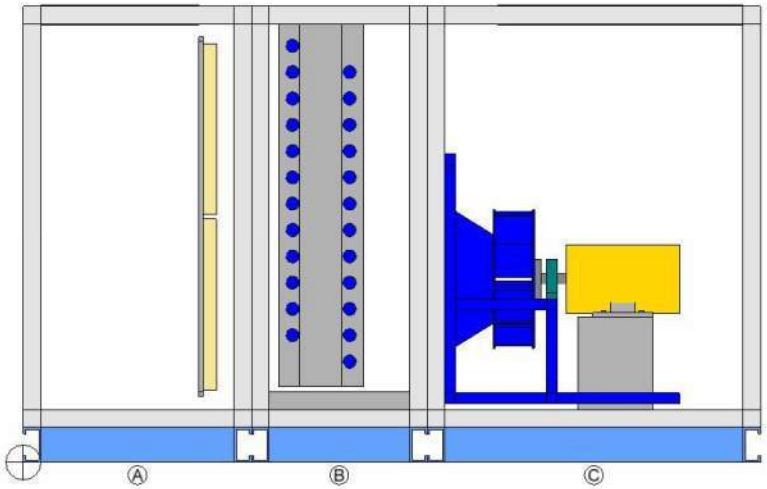
Service Clearance View	Unit Tag: AHU-1			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH009GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.



LEFT ELEVATION VIEW





RIGHT ELEVATION VIEW

Coil and Drain Connections

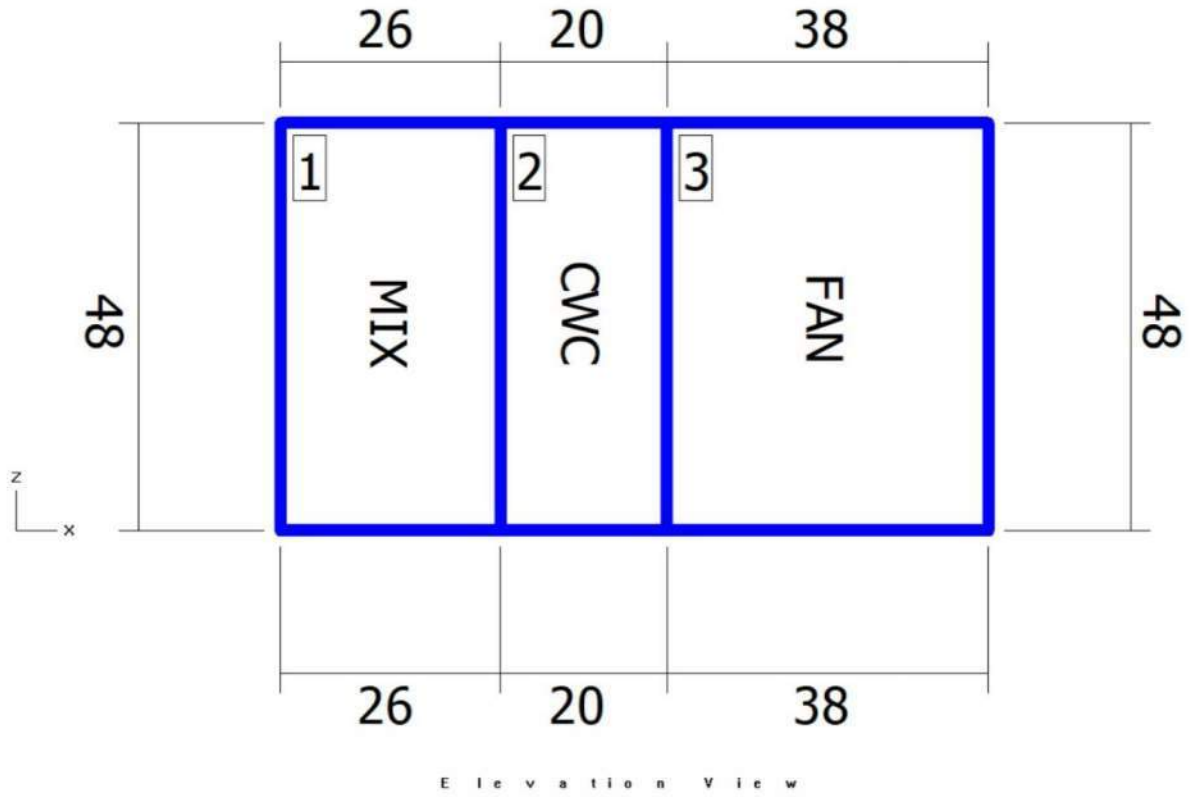
	Type	X	Y	Z	Diam
Ⓑ	Chilled Water coil Condensate drain conn:	29.94	46.90	7.00	1.25
	Cold water inlet:	37.16	51.00*	11.06	2.00
	Cold water outlet:	30.66	51.00*	47.94	2.00

Notes:
Dimensions are measured from the origin point.
* value varies +/- 1 in.

Coil and Drain Connections	Unit Tag: AHU-1			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH009GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.



Elevation View

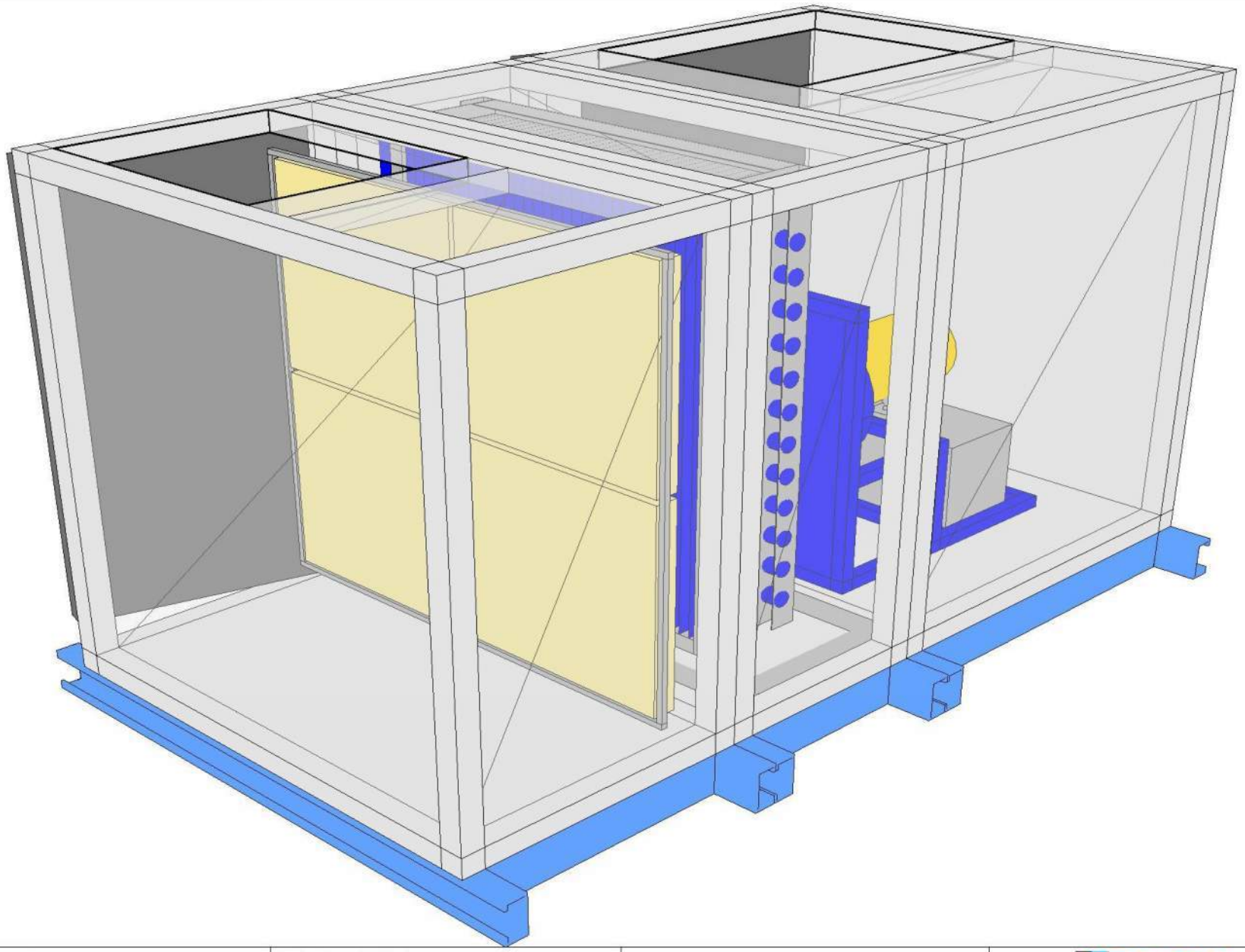
Shipping Sections				
Section	Weight (lb)	X	Y	Z
Section 1	256.36	26	44	48
Section 2	485.65	20	44	48
Section 3	555.24	38	44	48
Total Unit	1297.25	84	44	48

Note: Base rails, curb ready base, coil connectors, drain connectors, and control boxes not included in height X, Y, Z dimensions.
Shipping section may be 2" longer in air flow direction due to internal splice joint.

Shipping Sections	Unit Tag: AHU-1			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH009GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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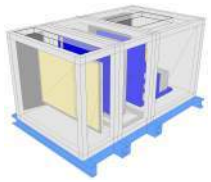
All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.



Product Drawing	Unit Tag: AHU-1			Sales Office: Perry Mechanical Systems			DAIKIN
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:			13600 Industrial Park Blvd, Minneapolis, MN 55441
Model: CAH009GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in	www.DaikinApplied.com Software Version: 13.82

All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.

Job Information	Technical Data Sheet
Job Name	STISD - STPA Library
Date	November 13 2025
Submitted By	EA
Software Version	13.82
Unit Tag	AHU-2



Unit Overview

Model Number	Supply					
	Air Volume cfm	Static Pressure		External Dimensions		
		External inWc	Total inWc	Height in	Width in	Length in
CAH005GDGM	2000	1.50	2.96	34*	38*	66

**Not including base rails, coil connectors, drain connectors and control boxes.*

Unit

Model Number:	CAH005GDGM		
Approval:	ETL Listed / ETL Listed to Canadian Safety Standards (ETL Label / ETLc Label)		
Outer Panel:	24 gauge G90 Galvanized Steel (unpainted)		
Liner:	24 gauge Galvanized Steel (unless noted per section)		
Insulation:	R-13 Injected Foam		
Unit Configuration:	Inline horizontal	**Drive (Handling) Location:**	Left
Base:	4" formed channel	**Wall Thickness:**	2 in
Altitude:	0 ft	**Parts Warranty:**	Standard One Year

Mixing Box

Component: 1 | Length: 16 in | Shipping Section: 1

Portion	Damper					Blade Action	Rated CFM	Air Pressure Drop	Quantity
	Size (length x width)		Location	Type	Actuation				
	Overall	Opening							
Outside Air	No opening	No opening		None		None	2000 cfm		0
Return Air	8 in x 34 in	8 in x 34 in	Top	None	NA	None	2000 cfm	0.08 insWg	1

Filter Data

Type	Efficiency	Nominal Face Velocity	Actual Face Velocity	Actual Face Area	Air Volume	Filter Loading
Pleated	MERV 8	375 ft/min	399 ft/min	5.0 ft²	2000 cfm	Side

Air Pressure Drop				Number of Filters	Height	Width	Depth
Clean Air	Mean Air	Dirty Air	User Spec				
0.17 inWc	**0.59** inWc	1.00 inWc	N/A	1	24 in	20 in	2 in
				1	24 in	12 in	2 in

Door

Location	Width	Opening
Drive side	12 in	Outward

Chilled Water Coil

Component: 2 | Length: 18 in | Shipping Section: 2

Coil Model	Total Capacity	Sensible Capacity	Number of Coils	Number of Rows	Fins per Inch	Tube Diameter	Tube Spacing (Face x Row)
5WQ1004C	70717 Btu/hr	51175 Btu/hr	1	4	10	0.625 in	1.50 in X 1.299 in

Air Volume	Air Temperature				Coil Air Pressure Drop	Finned Height	Finned Length	Face Area	Face Velocity
	Entering		Leaving						
	Dry Bulb	Wet Bulb	Dry Bulb	Wet Bulb					
2000 cfm	80.0 °F	67.0 °F	56.6 °F	55.7 °F	0.75 inWc	24 in	25 in	4.17 ft²	480 ft/min

Water

Entering	Leaving	Flow Rate	Pressure Drop	Velocity	Volume	Weight
44.0 °F	54.6 °F	13.30 gpm	7.80 ftHd	3.60 ft/s	3.0 gal	28.00 lb

Connection [Data Per Coil]				Min. Fin Surface Temp.	Min. Tube Wall Surface Temp.	Fouling Factor
Type	Size	Location	Material			
Threaded	1.50 in	Drive side	Carbon steel	44.0 °F	44.0 °F	0.000

Material				Drain Pan	Drain Side
Fin	Tube	Header	Case		
Aluminum .0075 in	Copper .020 in	Copper	Galv. steel	Stainless steel	Drive side

AHRI 410 Certification

Certified in accordance with the AHRI Forced-Circulation Air-Cooling and Air-Heating Coils Certification Program which is based on AHRI Standard 410 within the Range of Standard Rating Conditions listed in Table 1 of the Standard. Certified units may be found in the AHRI Directory at www.ahridirectory.org

Supply Fan

Component: 3 | Length: 32 in | Shipping Section: 3

Fan Performance

Air Volume	Static Pressure			Fan Energy Index(FEI)	Total Input Power	Fan Shaft Power	Speed		Outlet Velocity
	External	Total	Cabinet				Operating	Maximum	
2000 cfm	1.50 inWc	2.96 inWc	0.04 inWc	1.31	1.4 kW	1.62 BHP	2540 rpm	3909 rpm	N/A

Fan Data

Fan Type	Blade Type / Class	Nominal Fan Size	Quantity of Fans	Wheel Diameter	Material Type	Number of Blades	Discharge	Motor Location
Centrifugal - Plenum	Airfoil / 2	DDPL15	1	14.00 in	Aluminum	12	-	Behind Fan

Motor Data

Power	Electrical Supply	Speed	Efficiency	Enclosure	Frame Size	Supplier	Number of Poles	Lock Rotor Current	Full Load Current
2.0 HP	200/60/3 V/Hz/Phase	1750 rpm	Premium	ODP	145 T frame	Generic	4	49.04 A	6.50 A

Fan Options

Shaft Grounding Kit:	Provided	Isolator Type:	Rubber in shear

Custom Openings

Custom Opening	Location	Width	Height	Rainhood w/Screen
1	Top	16 in	22 in	None

Door

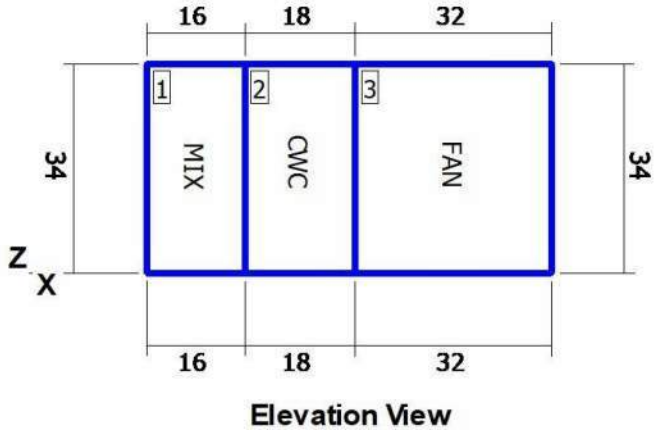
Location	Width	Opening
Drive side	28 in	Outward

Unit Sound Power (dB)

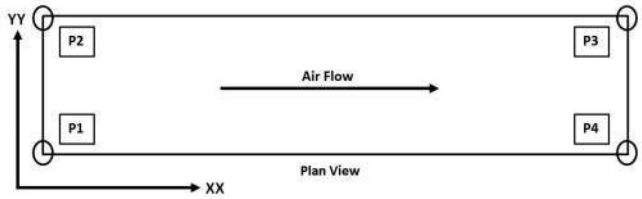
Type	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Radiated:	67	63	60	62	56	50	46	51
Unit Discharge:	77	73	76	80	78	78	78	69
Unit Return:	69	65	67	73	61	64	64	51

Shipping Section Details

Section	Length in	Weight lb	Corner Weights (lb)				Center of Gravity (in)		
			P1	P2	P3	P4	XX	YY	ZZ
1	16	165	38	38	45	45	9	19	17
2	18	294	75	82	73	65	8	20	17
3	32	372	112	112	74	74	13	19	16
Entire Unit	**66**	**831**	**215**	**223**	**201**	**193**	**31**	**19**	**17**



Elevation View



NOTE: Special components aren't included in the corner weights and center of gravity data.

NOTE: Shipping weights listed do not include weight of water (listed in coil section(s) above.

Shipping Protection

Stretch Wrap

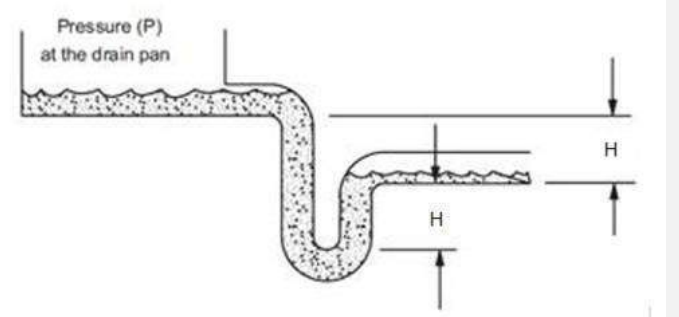
NOTE: Shipping protection is not meant for long term storage.

Supply Static Pressure Drop

Component	Option	Static Pressure Drop
Mixing Box	Filter	0.59 insWg
Mixing Box	Mixing Box	0.09 insWg
Chilled Water coil	Chilled Water coil	0.75 insWg
Supply Fan	Cabinet	0.04 insWg
External Static	External Static	1.50 insWg
Total Supply Fan Static		2.96 insWg

Minimum Recommended Drain Pan Trap Dimensions

Shipping Section	Component	H
2	Chilled Water coil	3.34



Dimensions provided as a courtesy and are recommended minimums only. Daikin is not responsible for supplying or designing drain pan traps and is not responsible for any damage caused by incorrect trap heights. The dimensions listed above should be reviewed and approved by a licensed plumbing professional.

This calculation is based on an assumption that 0.25 inches of the external static pressure is in the return duct and the remainder is in the supply duct. If actual conditions vary from this assumption then contact Applications for new trap height recommendations.

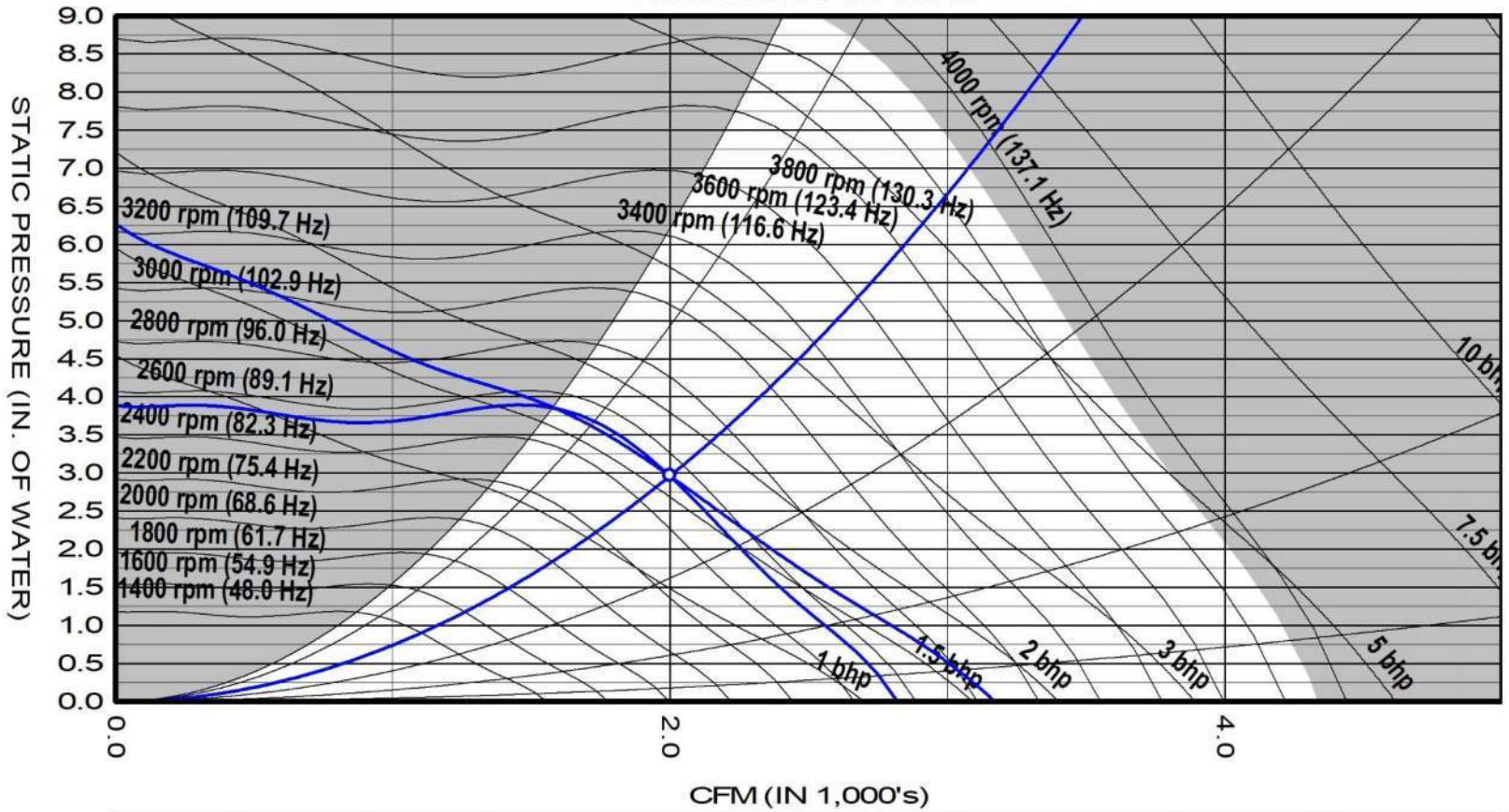
AHRI Certification

Certified by the AHRI Central Station Air-Handling Unit (AHU) Certification Program, which is based on AHRI Standard 430/431. AHRI certified units are subject to rigorous and continuous testing, have performance ratings independently measured and are third-party verified. Certified units may be found in the AHRI Directory at www.ahridirectory.org.

Notes

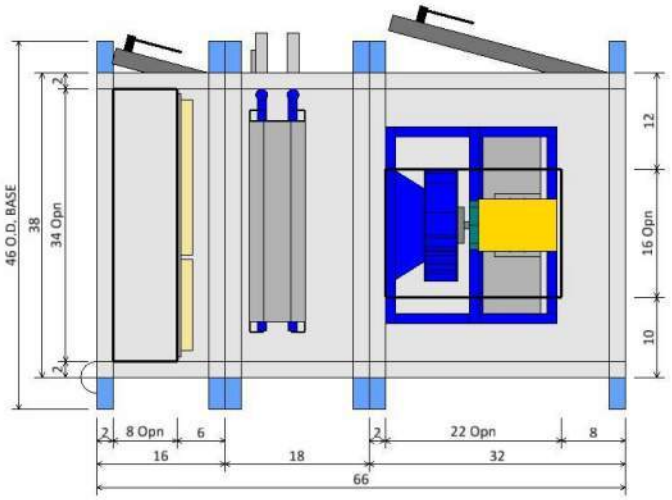
Standard
1. As a standalone component, unit meets or exceeds requirements of ASHRAE 90.1 - 2007. The approving authority is responsible for compliance of multi - component building systems.

Daikin AHU Fan Curve

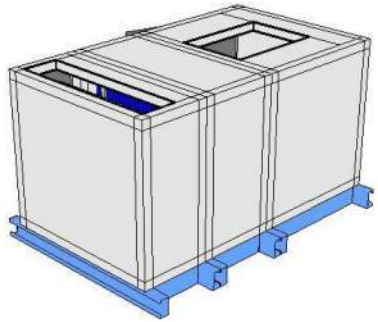


AF 15 DD PLENUM 12BL (100% Width) 1x1 Supply Fan at Standard Conditions					
Air volume	2000	cfm	Fan speed	2540	rpm
Total static	2.96	insWg	Max speed	3909	rpm
Fan Shaft Power	1.6	bhp	Efficiency	57.5	%
Approx VFD Setting	87.1	Hz	Motor Speed	1750	rpm
Fan Energy Index(FEI)	1.31				
Unit tagging	AHU-2		Date	November-13-2025	
Job name	STISD - STPA Library		Time	09:16	

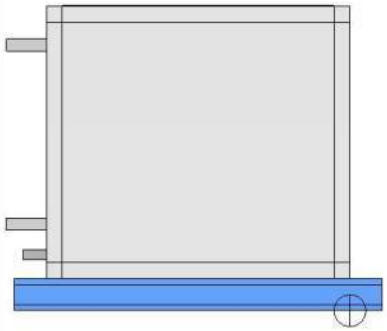
Supply fan performance is certified in accordance with the Central Station Air-Handling Unit Certification Program, which is based on AHRI Standard 430.



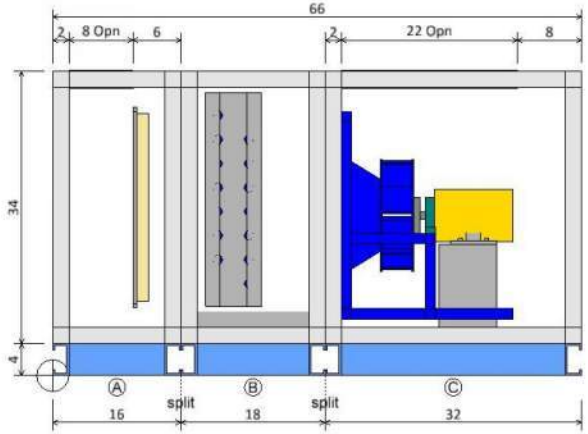
PLAN VIEW



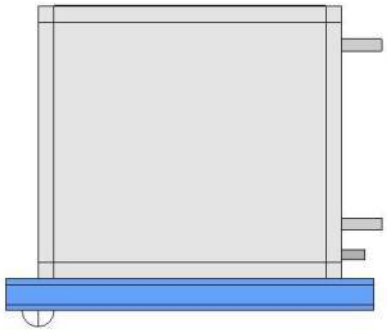
ISOMETRIC VIEW



FRONT END VIEW



ELEVATION VIEW

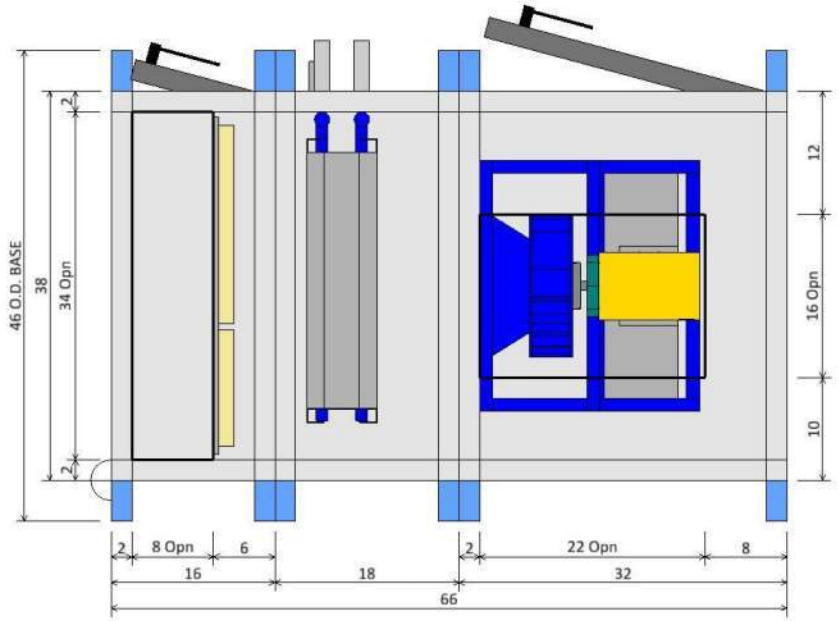


REAR END VIEW

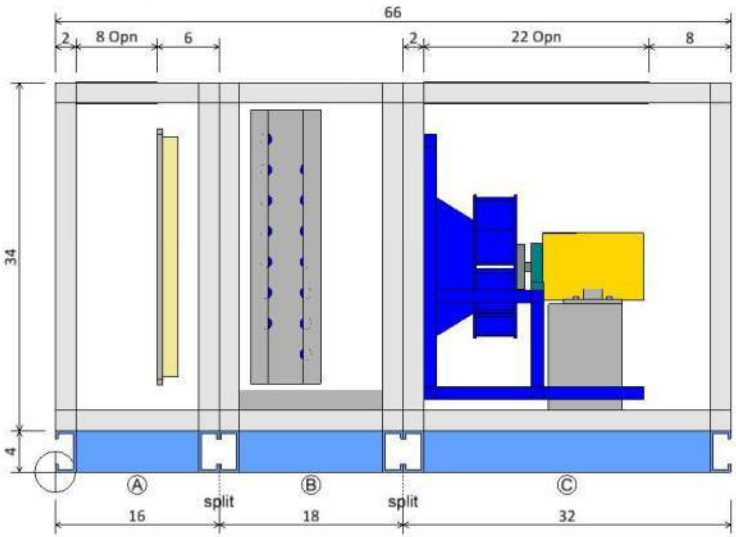
Plan/Elevation	Unit Tag: AHU-2			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH005GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.



PLAN VIEW



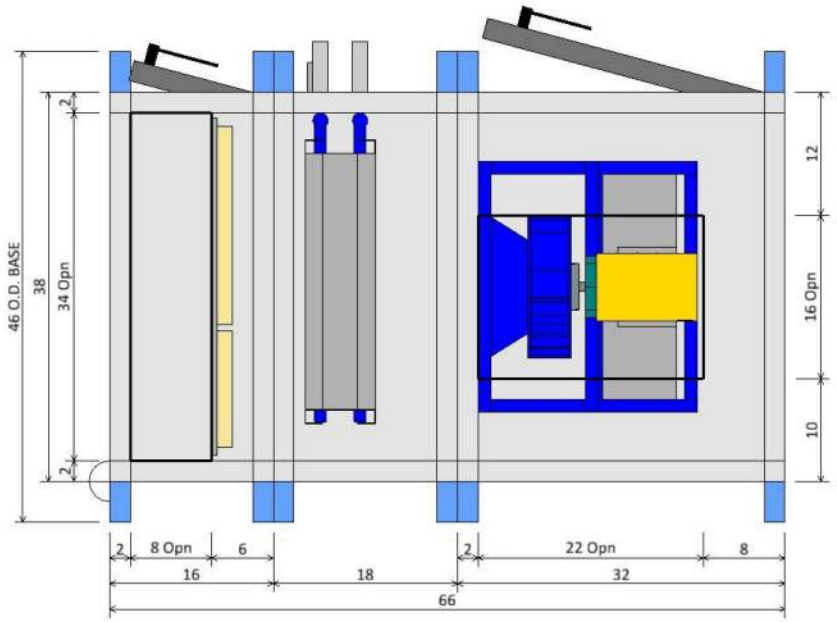
ELEVATION VIEW

Component Key		
Ⓐ	Mixing Box	
	Filter Type:	PerfectPleat HC M8
	Left Door (WxH):	12 ins x 30 ins
Ⓑ	Chilled Water coil	
	Coil Model:	5WQ1004C
	Total Capacity:	70717.0 Btu/hr
Ⓒ	Supply Fan	
	Fan Type:	Centrifugal - Plenum
	Fan Size (Class):	15 (2)
	Air Flowrate:	2000.0 cfm
	T.S.P:	3.0 insWg
	Motor Power:	2.0 HP
	Left Door (WxH):	28 ins x 30 ins

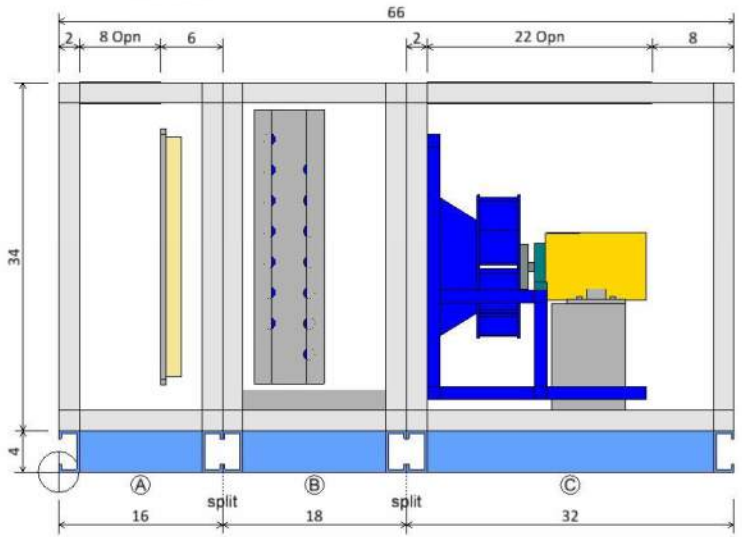
Plan/Elevation - No Ends	Unit Tag: AHU-2			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH005GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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PLAN VIEW



ELEVATION VIEW

Component Key

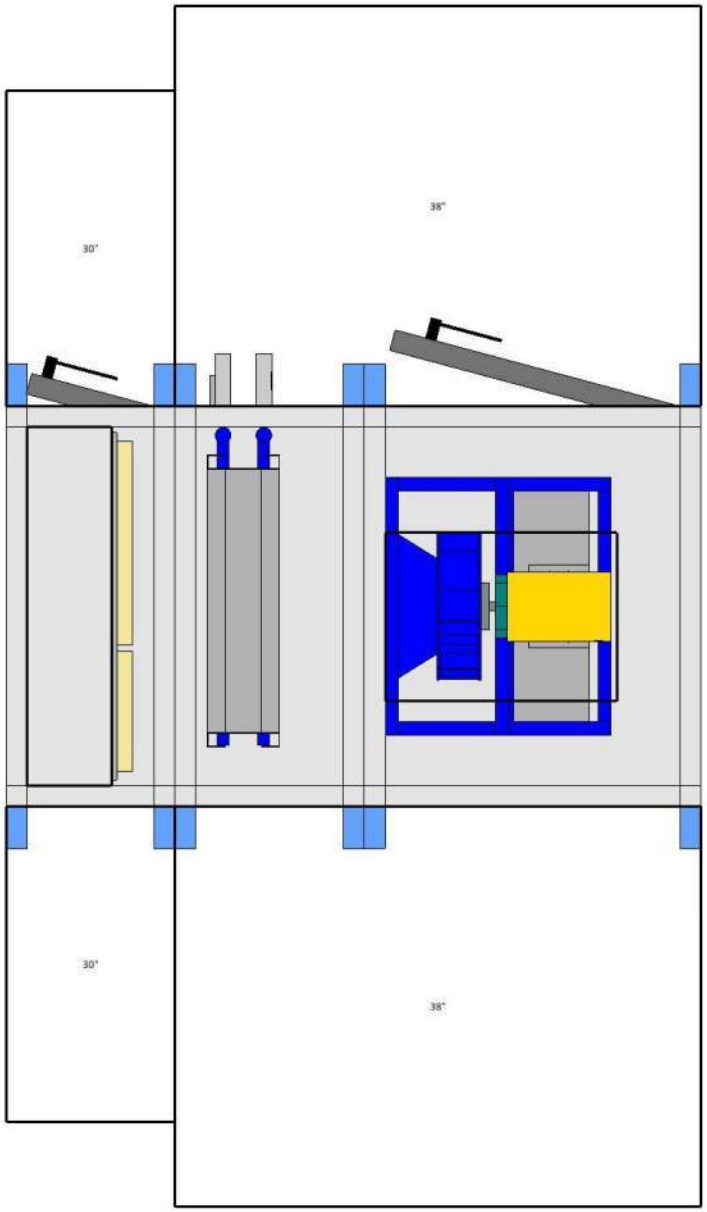
	Type	X	Y	Z	Wid	Hgt
Ⓐ	Mixing Box Return air opening	2.00	2.00	38.00	34.00	8.00
Ⓒ	Supply Fan Fan Discharge	36.00	10.00	38.00	16.00	22.00

Note: Dimensions are measured from the origin point.
Note: Openings with or without dampers are recessed into the unit by approximately 1.75 in.

Opening/Damper Connections	Unit Tag: AHU-2			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH005GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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PLAN VIEW

Notes

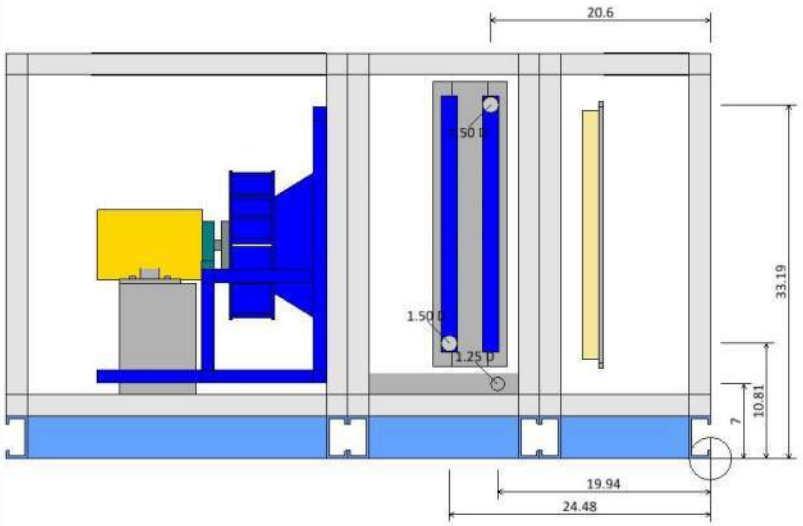
Check local electrical component service clearance codes for specific distances.

Access is only required on one side of the unit.

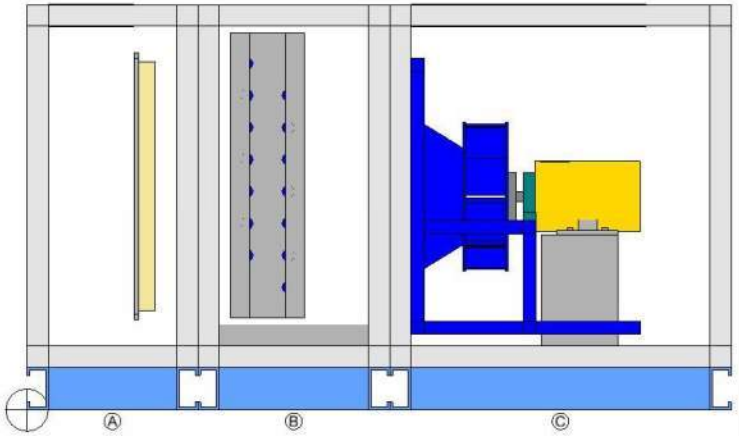
Service Clearance View	Unit Tag: AHU-2			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH005GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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LEFT ELEVATION VIEW



RIGHT ELEVATION VIEW

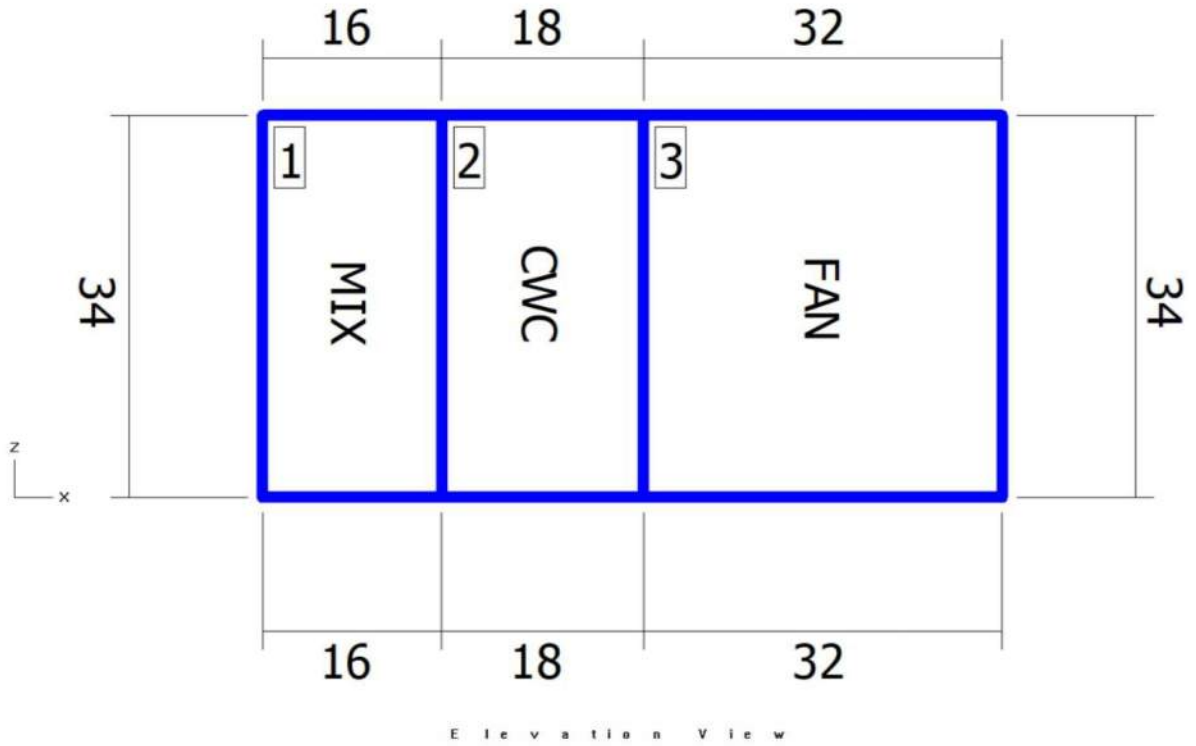
Coil and Drain Connections

	Type	X	Y	Z	Diam
	Chilled Water coil				
Ⓑ	Condensate drain conn:	19.94	40.90	7.00	1.25
Ⓑ	Cold water inlet:	24.48	45.00*	10.81	1.50
Ⓑ	Cold water outlet:	20.60	45.00*	33.19	1.50

Notes:
Dimensions are measured from the origin point.
* value varies +/- 1 in.

Coil and Drain Connections	Unit Tag: AHU-2			Sales Office: Perry Mechanical Systems			DAIKIN
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:			13600 Industrial Park Blvd, Minneapolis, MN 55441
Model: CAH005GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in	www.DaikinApplied.com Software Version: 13.82

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Elevation View

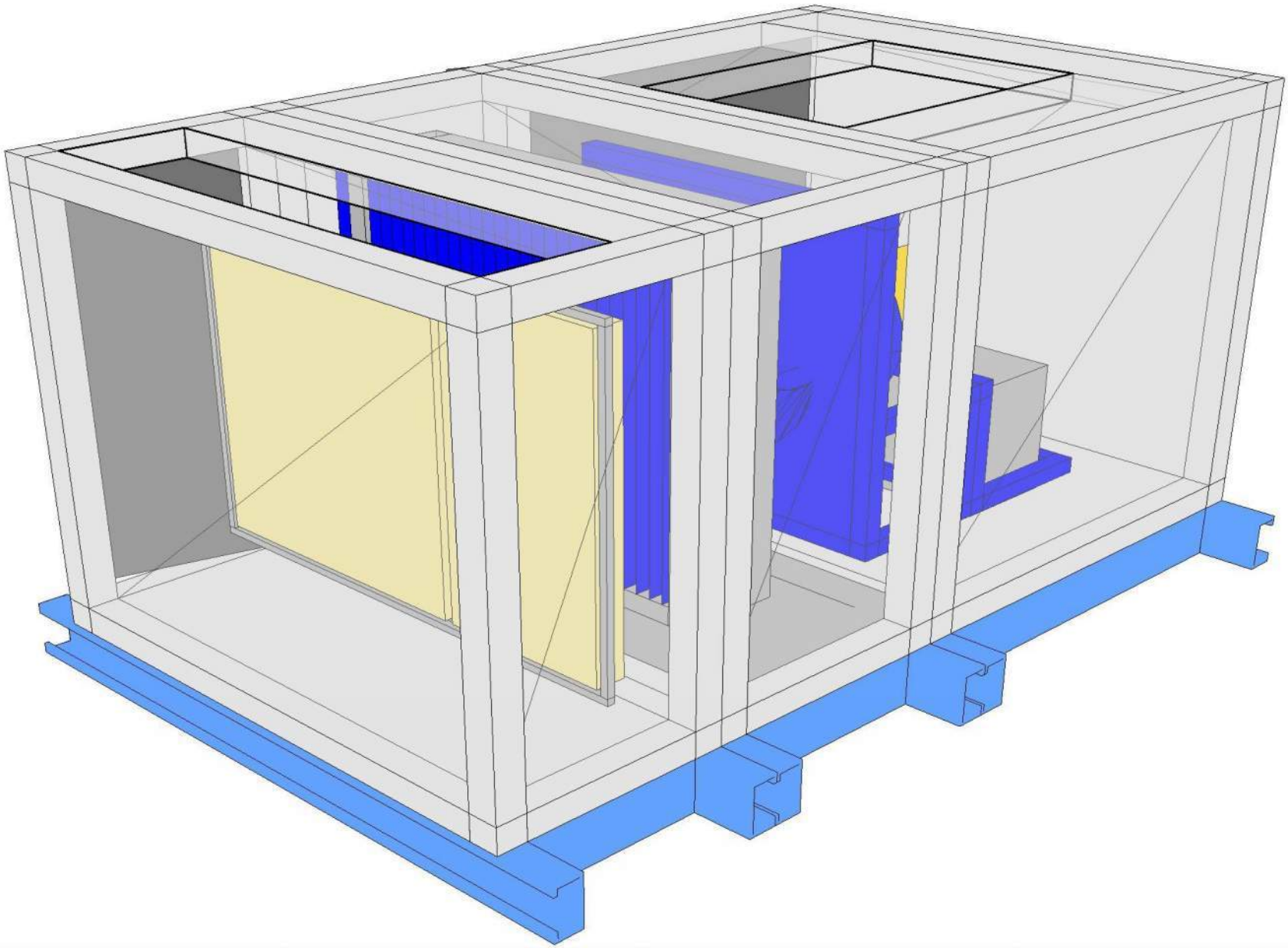
Shipping Sections				
Section	Weight (lb)	X	Y	Z
Section 1	165.44	16	38	34
Section 2	294.38	18	38	34
Section 3	372.47	32	38	34
Total Unit	832.30	66	38	34

Note: Base rails, curb ready base, coil connectors, drain connectors, and control boxes not included in height X, Y, Z dimensions.
Shipping section may be 2" longer in air flow direction due to internal splice joint.

Shipping Sections	Unit Tag: AHU-2			Sales Office: Perry Mechanical Systems		
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:		
Model: CAH005GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in

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Product Drawing	Unit Tag: AHU-2			Sales Office: Perry Mechanical Systems			DAIKIN
Product: Vision Air Handler	Project Name: STISD - STPA Library			Sales Engineer:			13600 Industrial Park Blvd, Minneapolis, MN 55441
Model: CAH005GDGM	Nov. 13, 2025	Ver/Rev:	Sheet: 1 of 1	Scale: NTS	Tolerance: +/-0.25"	Dwg Units: in	www.DaikinApplied.com Software Version: 13.82

All opening dimensions have a 1" mounting flange along the inner edge. The actual airflow area of the opening is 2" smaller in each dimension.

HAYS

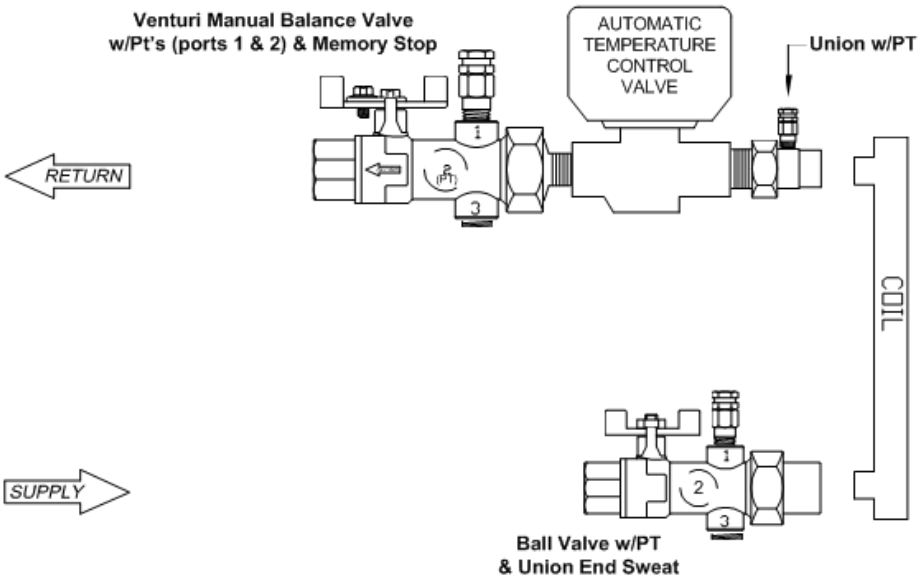
Customer: Perry Mechanical Systems
Job I.D.: STISD Library & Cafeteria
Attn.: Tony Ayala

2in Manual Venturi Style Valve

2 Way Manual Balance Piping Package

Trunk: 2in FSWT
Coil: 2in FNPT
Hose: N/A - Hard Pipe
ATC Valve: 1-1/2in - Modulating (Proportional), 24V

Flow Rate: 34.0 Cv
Extended Handles/PTs: YES
Manual Air Vent: YES



Tagging Information: AHU-1 - Piping Kit

DWG. NUMBER:
DWG. APPROVAL:
DWG. SUBMITTAL DATE: 11/13/2025
DWG. SUBMITTED BY: OPG
QUOTE NUM: 562907
ALL HAYS PIPING PACKAGES ARE ASSEMBLED AND LEAK TESTED

- DRAWING NOT TO SCALE
- IMPORTANT: HAYS FLUID CONTROLS. CANNOT GUARANTEE THAT ALL PIPING PACKAGES FIT WITHIN THE CONFINES OF A SPECIFIC INSTALLATION AREA.
- FOR NONLIKE SIZE COMPONENTS, TRANSITION FITTINGS MAY BE REQUIRED THAT ARE NOT SHOWN ON THE DRAWING.

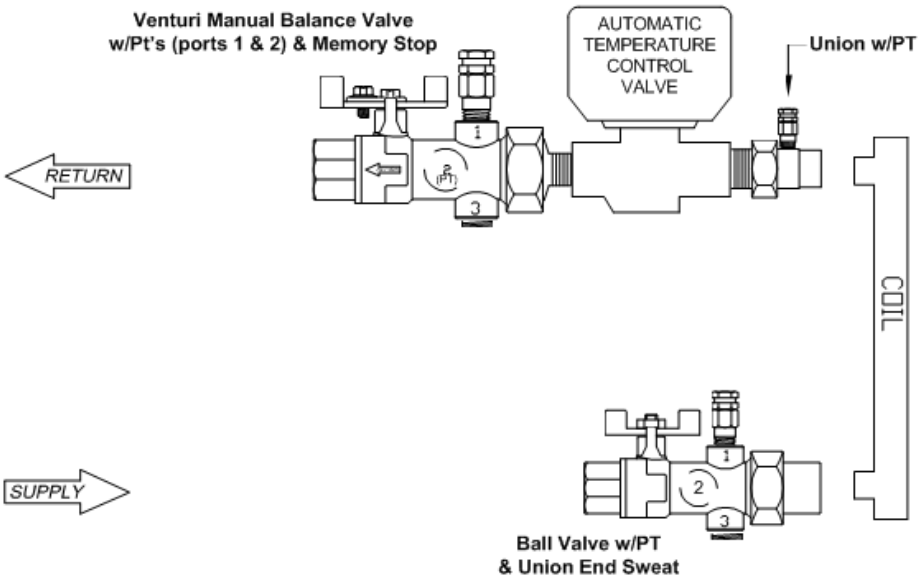
HAYS

Customer: Perry Mechanical Systems
Job I.D.: STISD Library & Cafeteria
Attn.: Tony Ayala

1-1/2in Manual Venturi Style Valve
2 Way Manual Balance Piping Package

Trunk: 1-1/2in FSWT
Coil: 1-1/2in FNPT
Hose: N/A - Hard Pipe
ATC Valve: 1-1/4in - Modulating (Proportional), 24V

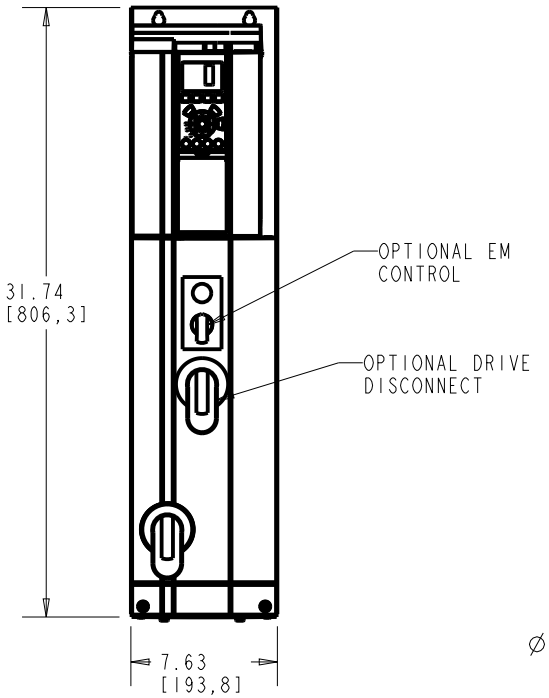
Flow Rate: 14.0 Cv
Extended Handles/PTs: YES
Manual Air Vent: YES

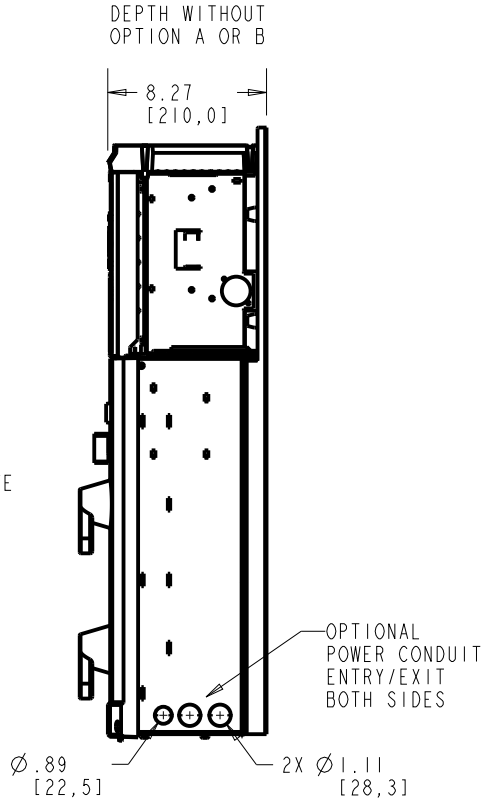


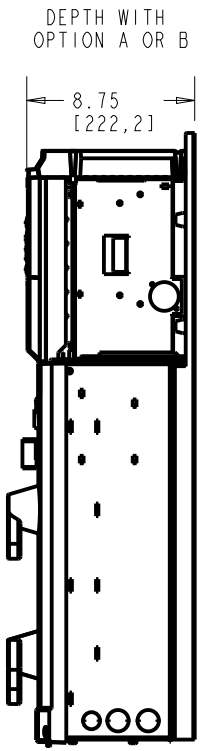
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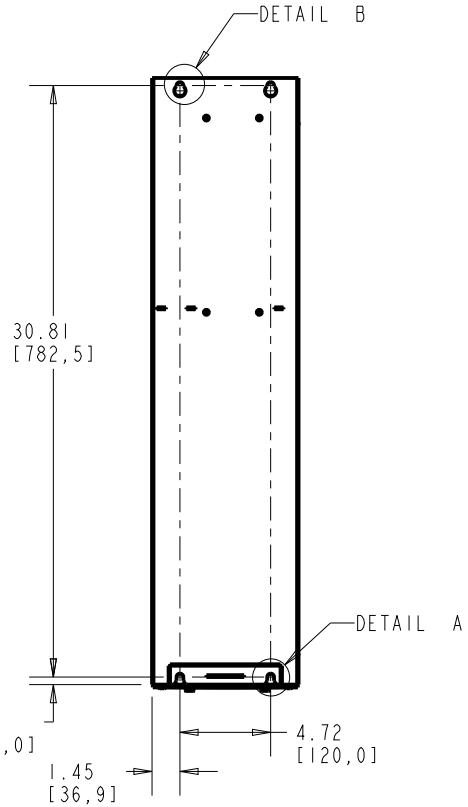
DWG. NUMBER:
DWG. APPROVAL:
DWG. SUBMITTAL DATE: 11/13/2025
DWG. SUBMITTED BY: OPG
QUOTE NUM: 562907
ALL HAYS PIPING PACKAGES ARE ASSEMBLED AND LEAK TESTED

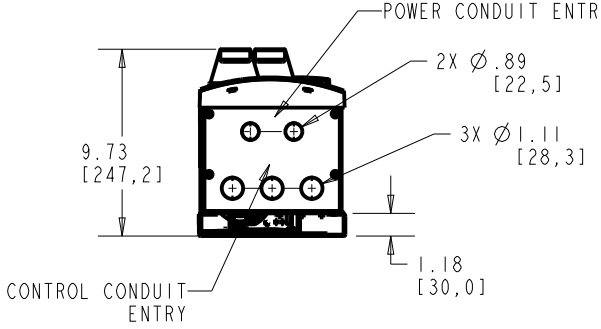
- DRAWING NOT TO SCALE
- IMPORTANT: HAYS FLUID CONTROLS. CANNOT GUARANTEE THAT ALL PIPING PACKAGES FIT WITHIN THE CONFINES OF A SPECIFIC INSTALLATION AREA.
- FOR NONLIKE SIZE COMPONENTS, TRANSITION FITTINGS MAY BE REQUIRED THAT ARE NOT SHOWN ON THE DRAWING.

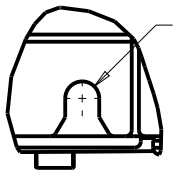


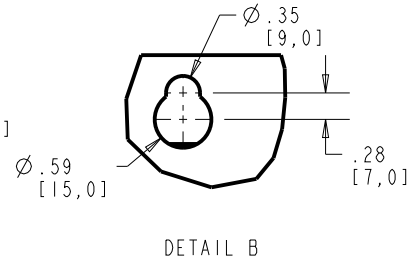












CLEARANCE REQUIREMENT FOR AIR FLOW COOLING:

THE UNIT MUST BE INSTALLED VERTICALLY WITH THE MINIMUM CLEARANCE OF 3.94" [100.0mm] ON THE BOTTOM AND 1.50" [38.1mm] ON EITHER SIDE FOR UNIT COOLING.

UNIT APPROXIMATE WEIGHT: 35 Lbs [16 Kg]

FRAME SIZE A2 AND A3		
VOLTAGE	HP	KW
208/230	0.5-5	1.1-3.7
460/600	0.5-10	1.1-7.5

- NOTICE -

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF DANFOSS DRIVES. IT IS LOANED BY DANFOSS DRIVES SUBJECT TO THE CONDITIONS THAT IT AND THE THE INFORMATION EMBODIED THEREIN SHALL BE USED ONLY FOR RECORD AND REFERENCE PURPOSES, SHALL NOT BE USED OR CAUSED TO BE USED IN ANY WAY PREJUDICIAL TO THE INTERESTS OF DANFOSS DRIVES, SHALL NOT BE REPRODUCED OR COPIED IN WHOLE OR IN PART OR DISCLOSED TO ANYONE WITHOUT THE DIRECT WRITTEN PERMISSION OF DANFOSS DRIVES, AND SHALL BE RETURNED UPON REQUEST.

PRO-E ENTRY BY/DATE:	CHECKED BY/DATE:
MG 3/02/07	
DESIGNED BY/DATE:	MFG. APPROVAL BY/DATE:
MG 3/02/07	
APPROVAL:	ENG. APPROVAL BY/DATE:

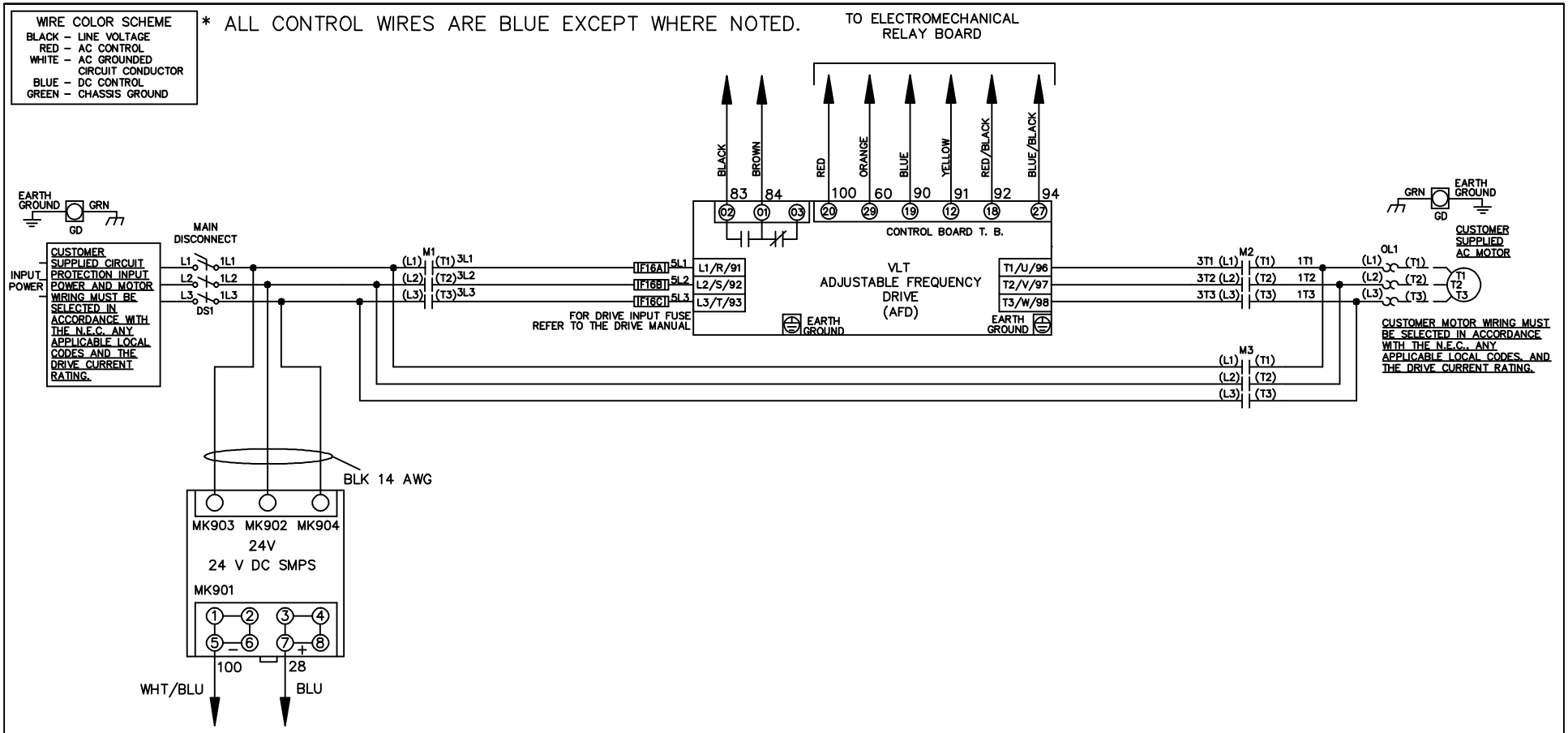
DANFOSS DRIVES
4401 N. BELL SCHOOL RD. LOVES PARK, ILLINOIS 61111 USA
(815) 639-8600 FAX (815) 639-8000

TITLE: DWG,REF,SUBMITTAL,A2-A3-TIER 2

LATEST E.C.N. NO.:	E.C.N. PRO-E ENTRY BY/DATE:	PLOT SCALE:	PRO-E FILE:	SHEET:	OF:	DRAWING NO.:	REV.:
SP10032	SAK 04/30/10	NONE	APU_A2-A3_MAIN_T2-T3	1	1	176U8485	A

WIRE COLOR SCHEME
BLACK – LINE VOLTAGE
RED – AC CONTROL
WHITE – AC GROUNDED CIRCUIT CONDUCTOR
BLUE – DC CONTROL
GREEN – CHASSIS GROUND

* ALL CONTROL WIRES ARE BLUE EXCEPT WHERE NOTED.



REV	ECN	DATE

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DRN JNW 2/14/07

APR

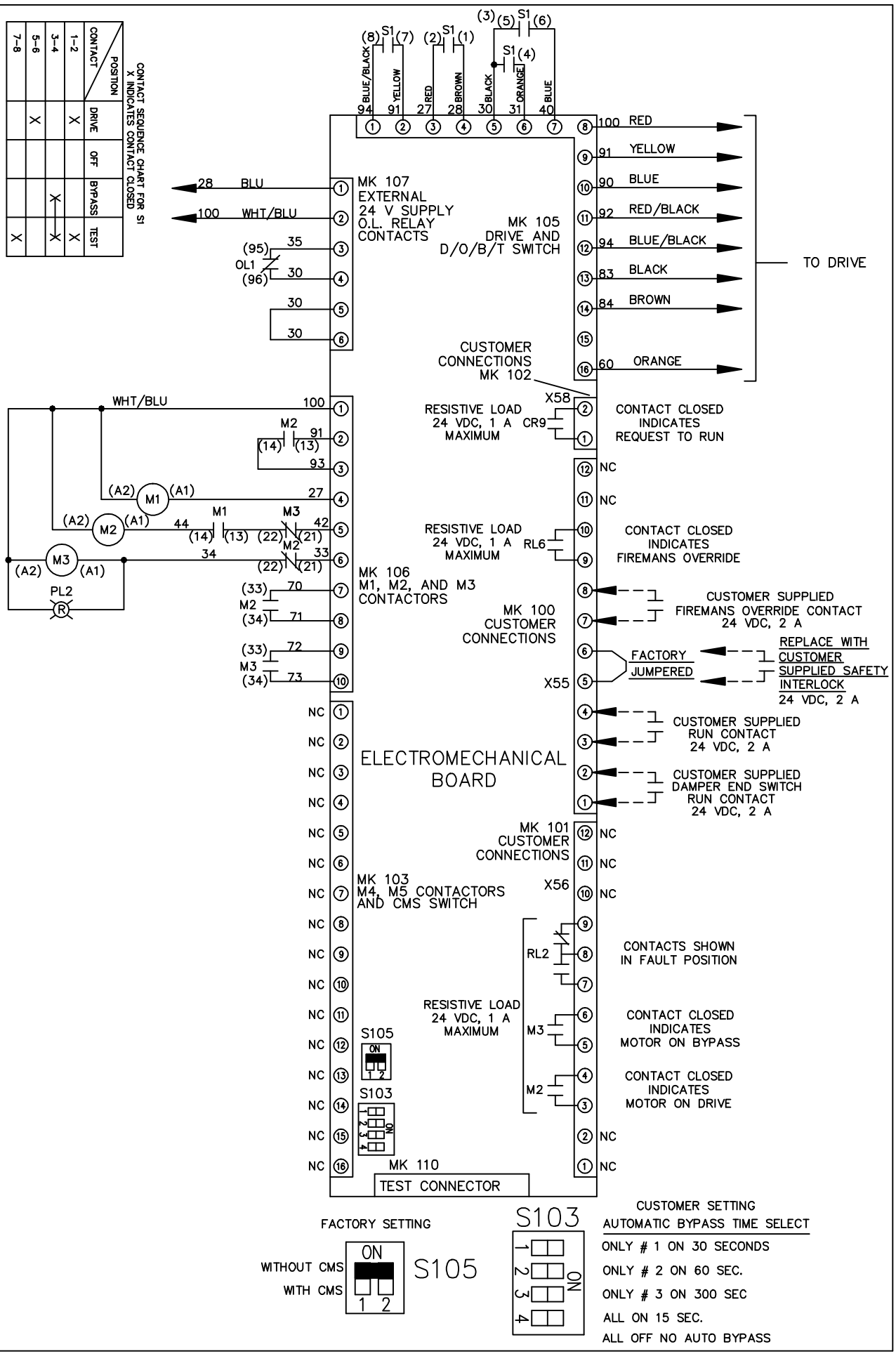
NAME 208–600VOLT,3C,MAIN DISC ,DRIVE FUSE,EMB2,FRAME A2–A3 ,NO REACTOR & DVDT,SINGLE MTR

MODEL VLT

PAGE 1 OF 2

SIZE A

DWG NO. 174U3338



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REV	ECN	DATE	DRN	APR
			JNW 2/14/07	

NAME 208-600VOLT,3C,MAIN DISC ,DRIVE FUSE,EMB2,FRAME A2-A3 ,NO REACTOR & DVDT,SINGLE MTR

MODEL VLT | PAGE 2 OF 2 | SIZE A | DWG NO. 174U3338

Danfoss

HVAC Equipment Submittal Data

For Review and Approval

11/04/2025

Project Info		Submitted By	
Project Name:	STISD Edinburg	Dealer Name:	Tony Ayala
Software version:	3.0	Email:	tony@perry-mechanical.com

Certifications:

Daikin brand heating and cooling units are certified as follows:

- AHRI Certified
- ETL & CETL Listed
- GAMA Certified

Limited Warranty:

- 5 year parts limited warranty
- 20 year heat exchanger limited warranty
- Complete warranty details attached

Daikin North America, LLC is not responsible for products installed outside the United States or its territories, or Canada.

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Design Requirements

Cooling Capacity	**90,000 BTU/h**
Configuration	**Downflow**

Standard Features: DS Series Packaged Units

- R-32 chlorine-free refrigerant
- High-efficiency Copeland scroll compressor(s)
- Copper tube / aluminum fin coils
- High-capacity, steel-cased filter dryer
- High- and Low-pressure switches
- Lugged electrical contactor
- Single-point power
- Color Coded Wiring
- Foil Faced Internal Insulation
- Heavy-gauge, galvanized-steel cabinet
- UV-resistant powder-paint finish
- Full perimeter base rail

Unit Electrical Data

Power Supply	**208-230/3/60 VOLT/PH**
Total Unit MCA	**88.2/100 A**
Total Unit MOP	**90/110 A**
Indoor Motor HP	**2.4 HP**
Total Unit FLA	**70.50/80.20 A**
• Compressor RLA	**24.4**
• Blower FLA	**8.0**
• Outdoor Fan FLA	**4.0**
• Heat Kit FLA	**62.5/72.2**
SCCR	**5 kA**

Model Number: **DSC0903W000004C**

Code String: **DSC0903WXXXCXADXXXXXXX**

Tag: **AC Unit #3 & #5**

Cooling Performance *4

Total Capacity	**87,900 BTU/h**
Sensible Capacity	**70,648 BTU/h**
Cooling Stages	**Two**
Refrig Type	**R-32**
Compressor Type	**Copeland Scroll**
Pressure Switches	**High & Low Pressure (std)**
Outdoor Design Temp	**98.00°F**
Entering Air Temp(db)	**78.00°F**
Entering Air Temp(wb)	**65.00°F**
Leaving Air Temp(db)	**58.20°F**
Leaving Air Temp(wb)	**56.10°F**
Efficiency	**16.0 IEER/12.0 EER**

Heating Performance *4

Heat Type	**Electric**
Elect Htr KW	**30kW Elect Htr**
Entering Air Temp	**60.00 °F**
Leaving Air Temp	**89.20 °F**

Supply Air Blower Performance

ACFM	**3251 cfm**
SCFM	**3251 cfm**
Speed Tap	**T6**
ESP	**0.50 IWG**
Total ESP	**0.50 IWG**
Blower Type	**Direct Drive - High Static**
Elevation	**0 ft**

Physical Attributes

Base Unit Oper. Weight (lbs)	**1015**
Filter(s)	**20"X20"X2" Qty: 2** **20"X25"X2" Qty: 2**

Outdoor sound (db) at 60 Hz									
Model	**A-Weighted**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
090	81.3	N/A	69.3	72.0	75.2	76.1	74.2	69.3	60.3

db - decibel

Notes:

1 Outdoor sound data is measured in accordance with AHRI standard 270.

2 Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environment factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.

3 A-weighted sound ratings filter out high and very low frequencies, to better approximate the response of average human ear. A-weighted measurements for Daikin units are taken in accordance with AHRI standard 270.

4 All air temps are measured at the unit's inlet and outlet. Air temps are not measured at the coil.

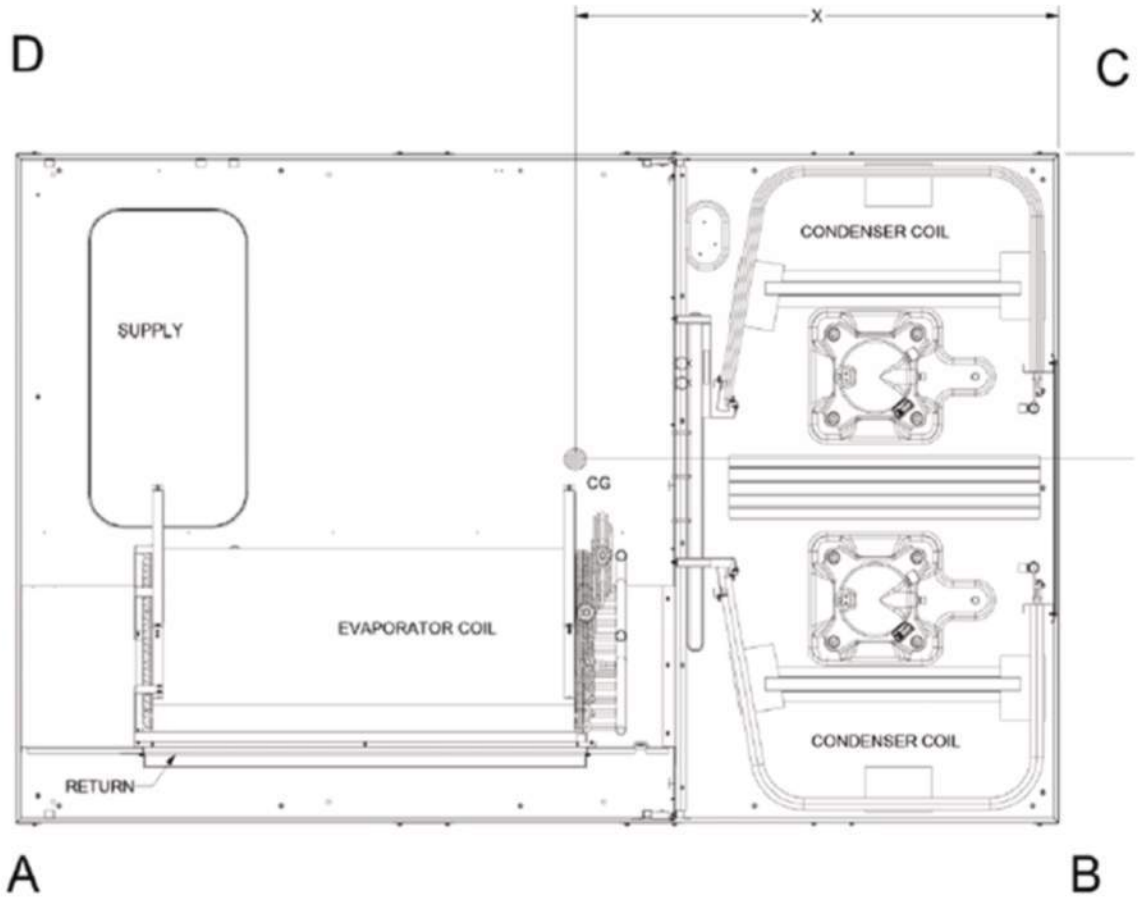
LIST OF ACCESSORIES

Model Number: DSC0903W000004C; Code String: DSC0903WXXXCXADXXXXXXX; Tag: AC Unit #3 & #5;

Accessories

Fld Inst	Fct Inst	Item #	Description	Dimensions	lbs
Y		0270L02720MC	Condenser Hail Guard		N/A
Y		DT4273C	DT4273C Color Touch Stat w/WiFi and Hum/Dehum Control 4H/2C	6 × 4 × 2	.25
Y		0270L02709MC	Manual Fresh Air Damper		N/A
Y		EHXD-3M30	30kW Elect Htr		
			Base Unit Oper. Weight		1015
			Total Weight		1015

CORNER WEIGHTS DIMENSIONS



Model	Shipping Weight (lbs)	Operating Weight (lbs)	Corner Weights (lbs)				Length	Width
			A	B	C	D	X (in)	Y (in)
DSC0903W	1087	1015	243	226	274	272	30.60	42.70

Design Requirements

Cooling Capacity	**90,000 BTU/h**
Configuration	**Downflow**

Standard Features: DS Series Packaged Units

- R-32 chlorine-free refrigerant
- High-efficiency Copeland scroll compressor(s)
- Copper tube / aluminum fin coils
- High-capacity, steel-cased filter dryer
- High- and Low-pressure switches
- Lugged electrical contactor
- Single-point power
- Color Coded Wiring
- Foil Faced Internal Insulation
- Heavy-gauge, galvanized-steel cabinet
- UV-resistant powder-paint finish
- Full perimeter base rail

Unit Electrical Data

Power Supply	**208-230/3/60 VOLT/PH**
Total Unit MCA	**88.2/100 A**
Total Unit MOP	**90/110 A**
Indoor Motor HP	**2.4 HP**
Total Unit FLA	**70.50/80.20 A**
• Compressor RLA	**24.4**
• Blower FLA	**8.0**
• Outdoor Fan FLA	**4.0**
• Heat Kit FLA	**62.5/72.2**
SCCR	**5 kA**

Model Number: **DSC0903W000004C**

Code String: **DSC0903WXXXCXADXXXXXXX**

Tag: **AC Unit #1**

Cooling Performance *4

Total Capacity	**87,900 BTU/h**
Sensible Capacity	**70,648 BTU/h**
Cooling Stages	**Two**
Refrig Type	**R-32**
Compressor Type	**Copeland Scroll**
Pressure Switches	**High & Low Pressure (std)**
Outdoor Design Temp	**98.00°F**
Entering Air Temp(db)	**78.00°F**
Entering Air Temp(wb)	**65.00°F**
Leaving Air Temp(db)	**58.20°F**
Leaving Air Temp(wb)	**56.10°F**
Efficiency	**16.0 IEER/12.0 EER**

Heating Performance *4

Heat Type	**Electric**
Elect Htr KW	**30kW Elect Htr**
Entering Air Temp	**60.00 °F**
Leaving Air Temp	**89.20 °F**

Supply Air Blower Performance

ACFM	**3251 cfm**
SCFM	**3251 cfm**
Speed Tap	**T6**
ESP	**0.50 IWG**
Total ESP	**0.50 IWG**
Blower Type	**Direct Drive - High Static**
Elevation	**0 ft**

Physical Attributes

Base Unit Oper. Weight (lbs)	**1015**
Filter(s)	**20"X20"X2" Qty: 2** **20"X25"X2" Qty: 2**

Outdoor sound (db) at 60 Hz									
Model	**A-Weighted**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
090	81.3	N/A	69.3	72.0	75.2	76.1	74.2	69.3	60.3

db - decibel

Notes:

1 Outdoor sound data is measured in accordance with AHRI standard 270.

2 Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environment factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.

3 A-weighted sound ratings filter out high and very low frequencies, to better approximate the response of average human ear. A-weighted measurements for Daikin units are taken in accordance with AHRI standard 270.

4 All air temps are measured at the unit's inlet and outlet. Air temps are not measured at the coil.

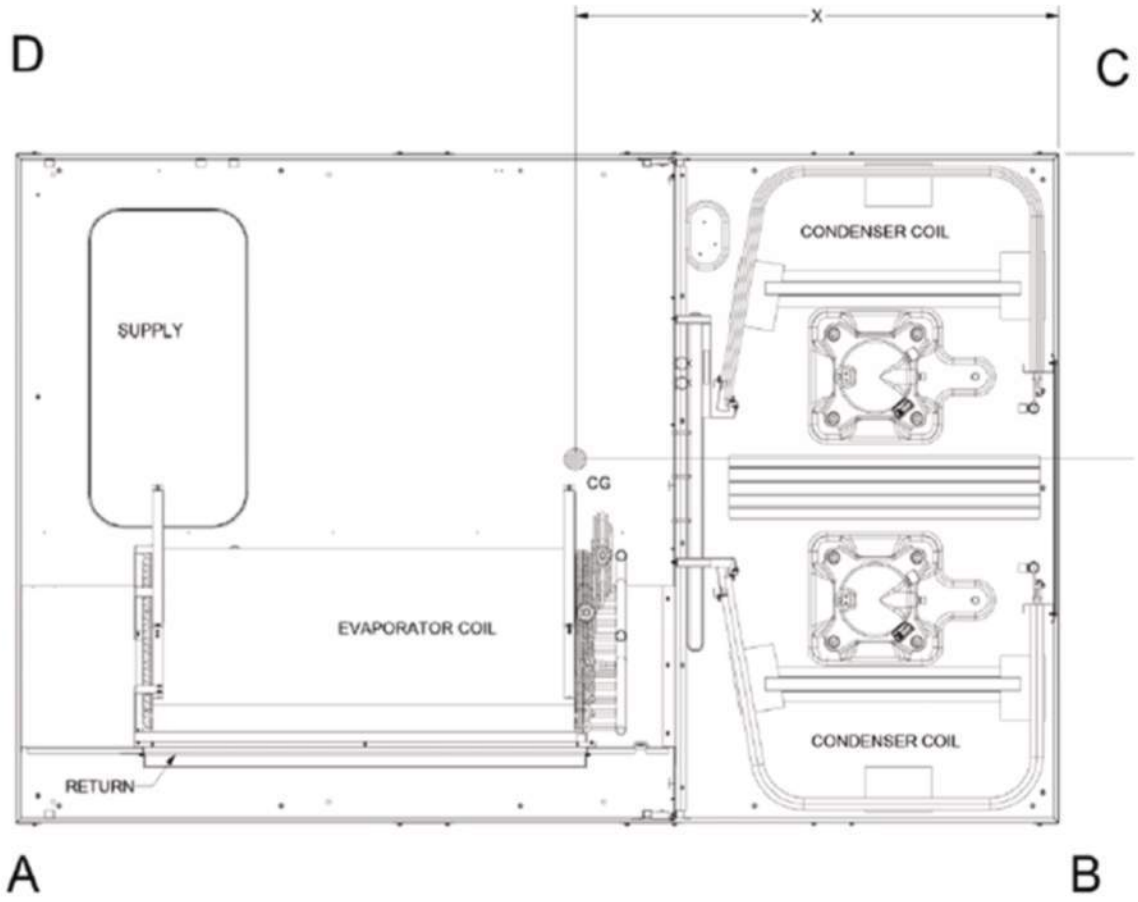
LIST OF ACCESSORIES

Model Number: DSC0903W000004C; Code String: DSC0903WXXXCXADXXXXXXX; Tag: AC Unit #1;

Accessories

Fld Inst	Fct Inst	Item #	Description	Dimensions	lbs
Y		0270L02720MC	Condenser Hail Guard		N/A
Y		0270L02709MC	Manual Fresh Air Damper		N/A
Y		EHXD-3M30	30kW Elect Htr		
			Base Unit Oper. Weight		1015
			Total Weight		1015

CORNER WEIGHTS DIMENSIONS



Model	Shipping Weight (lbs)	Operating Weight (lbs)	Corner Weights (lbs)				Length	Width
			A	B	C	D	X (in)	Y (in)
DSC0903W	1087	1015	243	226	274	272	30.60	42.70

Design Requirements

Cooling Capacity	**36,000 BTU/h**
Configuration	**Downflow**

Standard Features: DS Series Packaged Units

- R-32 chlorine-free refrigerant
- High-efficiency Copeland scroll compressor(s)
- Copper tube / aluminum fin coils
- High-capacity, steel-cased filter dryer
- High- and Low-pressure switches
- Lugged electrical contactor
- Single-point power
- Color Coded Wiring
- Foil Faced Internal Insulation
- Heavy-gauge, galvanized-steel cabinet
- UV-resistant powder-paint finish
- Full perimeter base rail

Unit Electrical Data

Power Supply	**208-230/1/60 VOLT/PH**
Total Unit MCA	**29.7/33.2 A**
Total Unit MOP	**40/40 A**
Indoor Motor HP	**0.75 HP**
Total Unit FLA	**23.80/26.50 A**
• Compressor RLA	**16.4**
• Blower FLA	**5.7**
• Outdoor Fan FLA	**0.95**
• Heat Kit FLA	**18.1/20.8**
SCCR	**5 kA**

Model Number: **DSC0361D000001S**

Code String: **DSC0361DXXXAXADXXXXXXX**

Tag: **AC Unit#4, RTU-Kitchen 3T**

Cooling Performance *4

Total Capacity	**33,746 BTU/h**
Sensible Capacity	**25,691 BTU/h**
Cooling Stages	**One**
Refrig Type	**R-32**
Compressor Type	**Copeland Scroll**
Pressure Switches	**High & Low Pressure (std)**
Outdoor Design Temp	**98.00°F**
Entering Air Temp(db)	**78.00°F**
Entering Air Temp(wb)	**65.00°F**
Leaving Air Temp(db)	**57.50°F**
Leaving Air Temp(wb)	**55.20°F**
Efficiency (M1)	**14.0 SEER2/12.0 EER2**

Heating Performance *4

Heat Type	**Electric**
Elect Htr KW	**5kW Elect Htr**
Entering Air Temp	**65.00 °F**
Leaving Air Temp	**78.90 °F**

Supply Air Blower Performance

ACFM	**1140 cfm**
SCFM	**1140 cfm**
Speed Tap	**T3**
ESP	**0.50 IWG**
Total ESP	**0.50 IWG**
Blower Type	**Direct Drive - Standard Static**
Elevation	**0 ft**

Physical Attributes

Base Unit Oper. Weight (lbs)	**484**
Filter(s)	**20"X25"X2" Qty: 2**

Outdoor sound (db) at 60 Hz									
Model	**A-Weighted**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
036	72.0	N/A	76.3	72.0	68.6	66.0	64.0	61.0	58.1

db - decibel

Notes:

1 Outdoor sound data is measured in accordance with AHRI standard 270.

2 Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environment factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.

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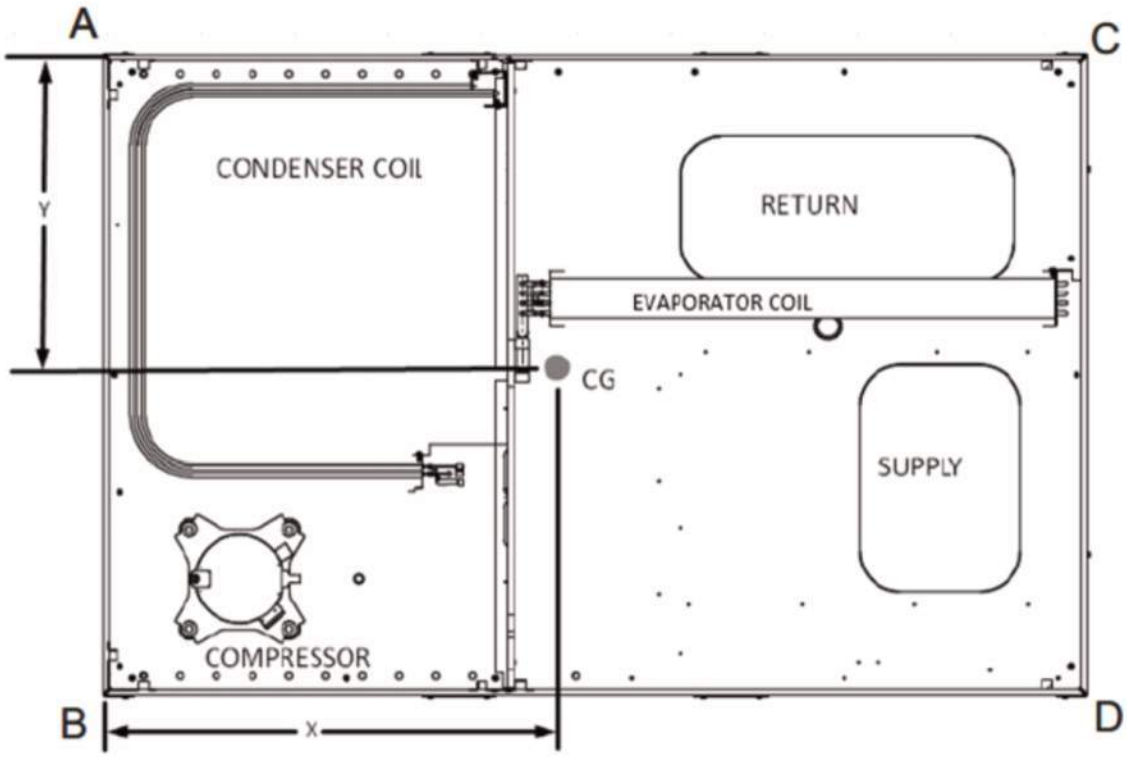
LIST OF ACCESSORIES

Model Number: DSC0361D000001S; Code String: DSC0361DXXXAXADXXXXXXX; Tag: AC Unit#4, RTU-Kitchen 3T;

Accessories

Fld Inst	Fct Inst	Item #	Description	Dimensions	lbs
Y		0270L02708MC	Manual Fresh Air Damper		N/A
Y		0270L02669MC	Condenser Hail Guard		N/A
Y		EHXD-1S05A	5kW Elect Htr		
			Base Unit Oper. Weight		484
			Total Weight		484

CORNER WEIGHTS DIMENSIONS



CORNER AND CENTER OF GRAVITY LOCATIONS

Model	Shipping Weight (lbs)	Operating Weight (lbs)	Corner Weights (lbs)				Length	Width
			A	B	C	D	X (in)	Y (in)
DSC0361D	554	484	117	142	80	145	34.40	28.60

Design Requirements

Cooling Capacity	**60,000 BTU/h**
Configuration	**Downflow**

Standard Features: DS Series Packaged Units

- R-32 chlorine-free refrigerant
- High-efficiency Copeland scroll compressor(s)
- Copper tube / aluminum fin coils
- High-capacity, steel-cased filter dryer
- High- and Low-pressure switches
- Lugged electrical contactor
- Single-point power
- Color Coded Wiring
- Foil Faced Internal Insulation
- Heavy-gauge, galvanized-steel cabinet
- UV-resistant powder-paint finish
- Full perimeter base rail

Unit Electrical Data

Power Supply	**208-230/1/60 VOLT/PH**
Total Unit MCA	**38.7/38.7 A**
Total Unit MOP	**60/60 A**
Indoor Motor HP	**1.0 HP**
Total Unit FLA	**32.80/32.80 A**
• Compressor RLA	**23.9**
• Blower FLA	**6.9**
• Outdoor Fan FLA	**2.0**
• Heat Kit FLA	**18.1/20.8**
SCCR	**5 kA**

Model Number: **DSC0601D000001S**

Code String: **DSC0601DXXXAXADXXXXXXX**

Tag: **RTU-Kitchen 5T**

Cooling Performance *4

Total Capacity	**55,668 BTU/h**
Sensible Capacity	**42,662 BTU/h**
Cooling Stages	**One**
Refrig Type	**R-32**
Compressor Type	**Copeland Scroll**
Pressure Switches	**High & Low Pressure (std)**
Outdoor Design Temp	**98.00°F**
Entering Air Temp(db)	**78.00°F**
Entering Air Temp(wb)	**65.00°F**
Leaving Air Temp(db)	**57.40°F**
Leaving Air Temp(wb)	**55.30°F**
Efficiency (M1)	**13.7 SEER2/11.8 EER2**

Heating Performance *4

Heat Type	**Electric**
Elect Htr KW	**5kW Elect Htr**
Entering Air Temp	**65.00 °F**
Leaving Air Temp	**73.40 °F**

Supply Air Blower Performance

ACFM	**1890 cfm**
SCFM	**1890 cfm**
Speed Tap	**T2**
ESP	**0.50 IWG**
Total ESP	**0.50 IWG**
Blower Type	**Direct Drive - Standard Static**
Elevation	**0 ft**

Physical Attributes

Base Unit Oper. Weight (lbs)	**512**
Filter(s)	**20"X25"X2" Qty: 2**

Outdoor sound (db) at 60 Hz									
Model	**A-Weighted**	**63**	**125**	**250**	**500**	**1000**	**2000**	**4000**	**8000**
060	77.0	N/A	82.7	73.7	73.6	72.0	68.5	65.6	58.5

db - decibel

Notes:

1 Outdoor sound data is measured in accordance with AHRI standard 270.

2 Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environment factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.

3 A-weighted sound ratings filter out high and very low frequencies, to better approximate the response of average human ear. A-weighted measurements for Daikin units are taken in accordance with AHRI standard 270.

4 All air temps are measured at the unit's inlet and outlet. Air temps are not measured at the coil.

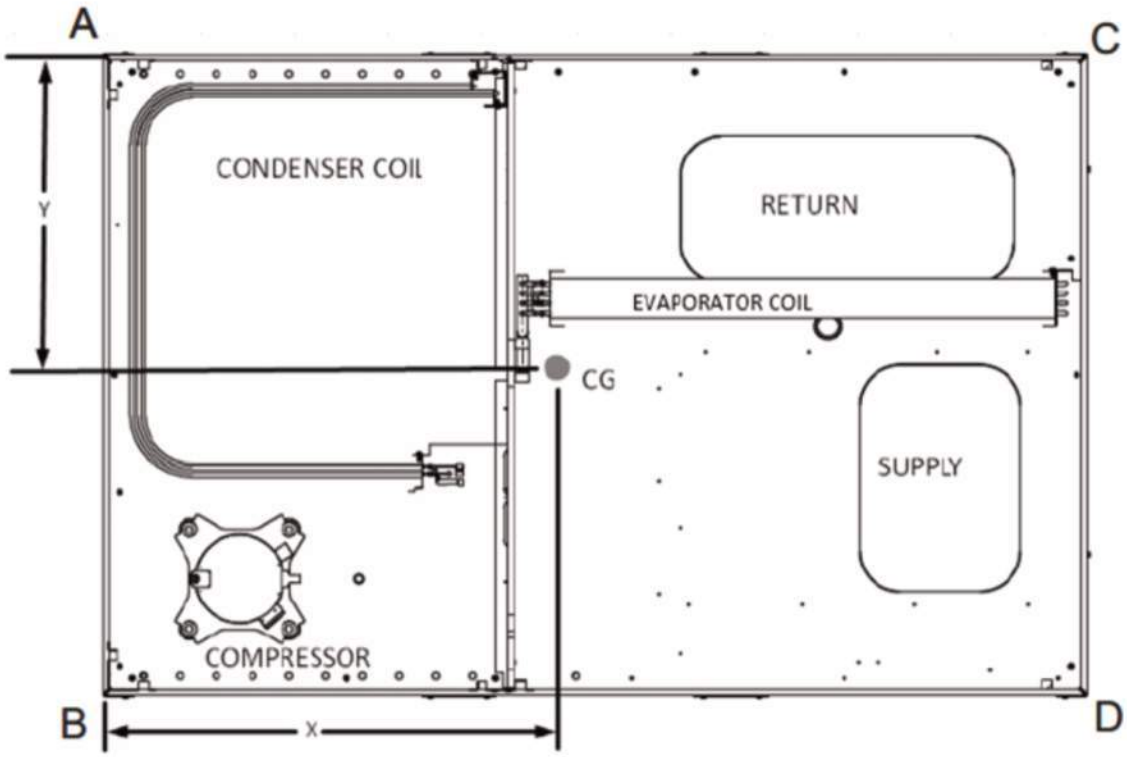
LIST OF ACCESSORIES

Model Number: DSC0601D000001S; Code String: DSC0601DXXXAXADXXXXXXX; Tag: RTU-Kitchen 5T;

Accessories

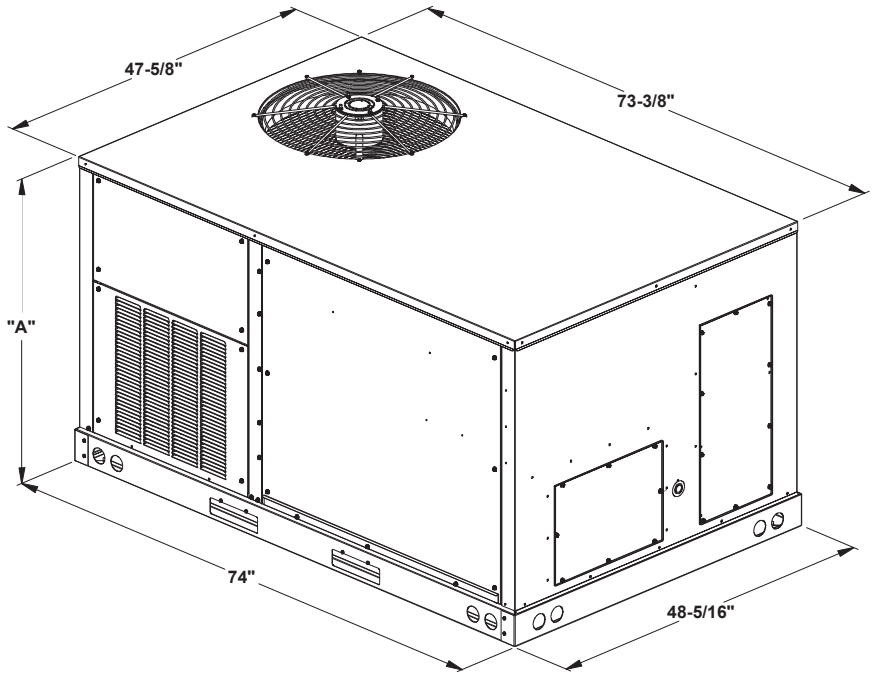
Fld Inst	Fct Inst	Item #	Description	Dimensions	lbs
Y		0270L02669MC	Condenser Hail Guard		N/A
Y		0270L02708MC	Manual Fresh Air Damper		N/A
Y		EHXD-1S05A	5kW Elect Htr		
			Base Unit Oper. Weight		512
			Total Weight		512

CORNER WEIGHTS DIMENSIONS

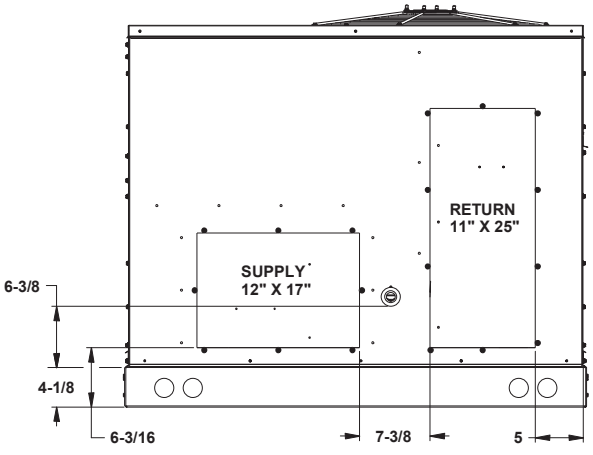


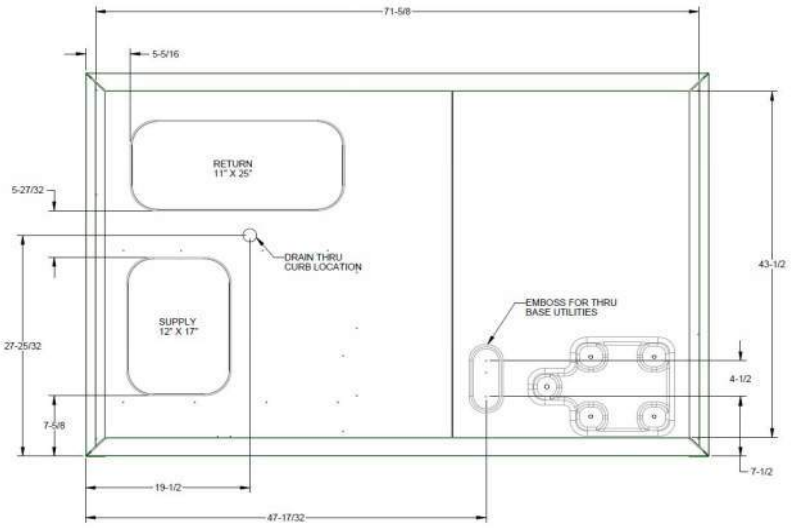
CORNER AND CENTER OF GRAVITY LOCATIONS

Model	Shipping Weight (lbs)	Operating Weight (lbs)	Corner Weights (lbs)				Length	Width
			A	B	C	D	X (in)	Y (in)
DSC0601D	582	512	113	166	104	129	33.70	27.80

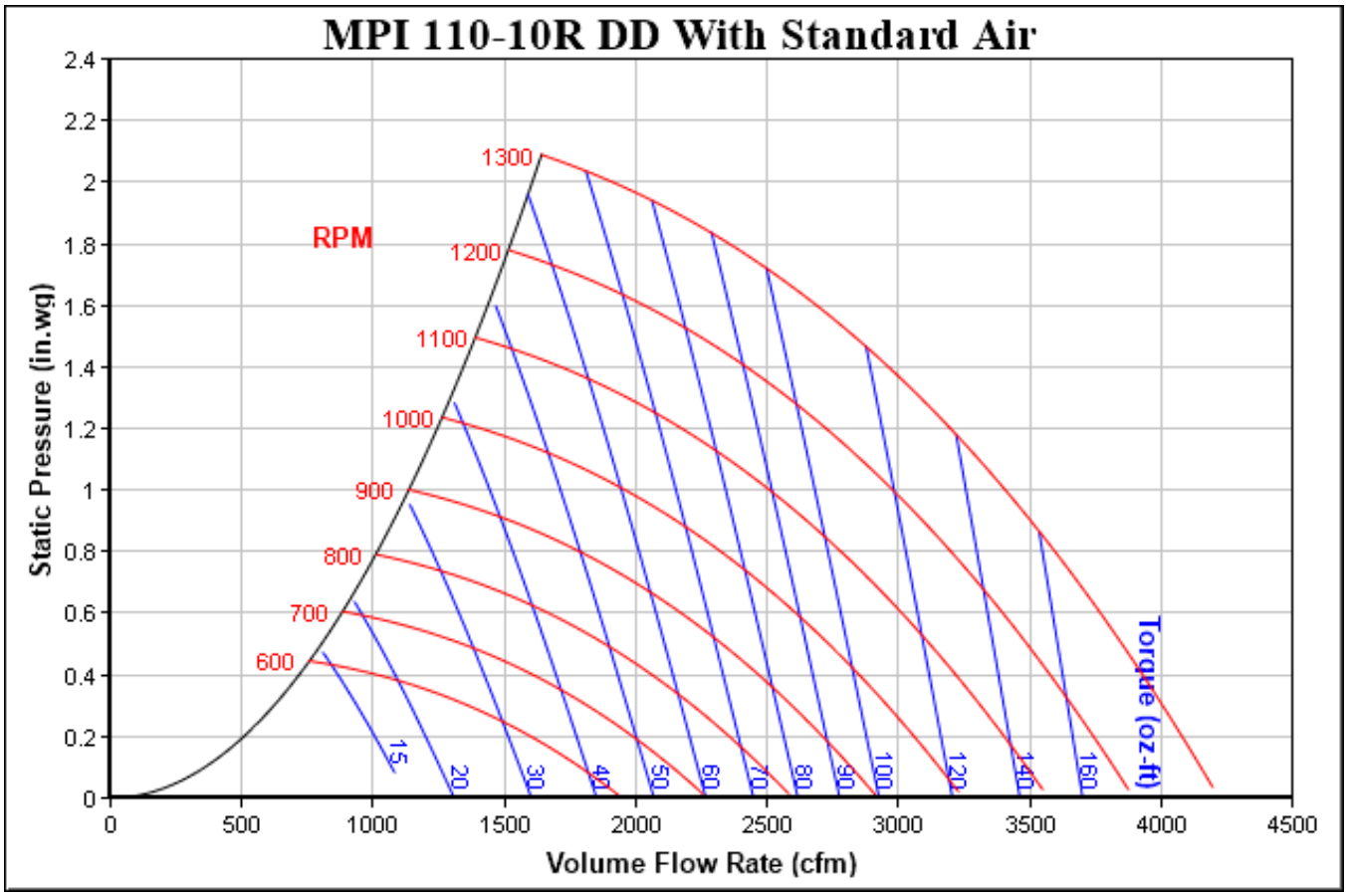


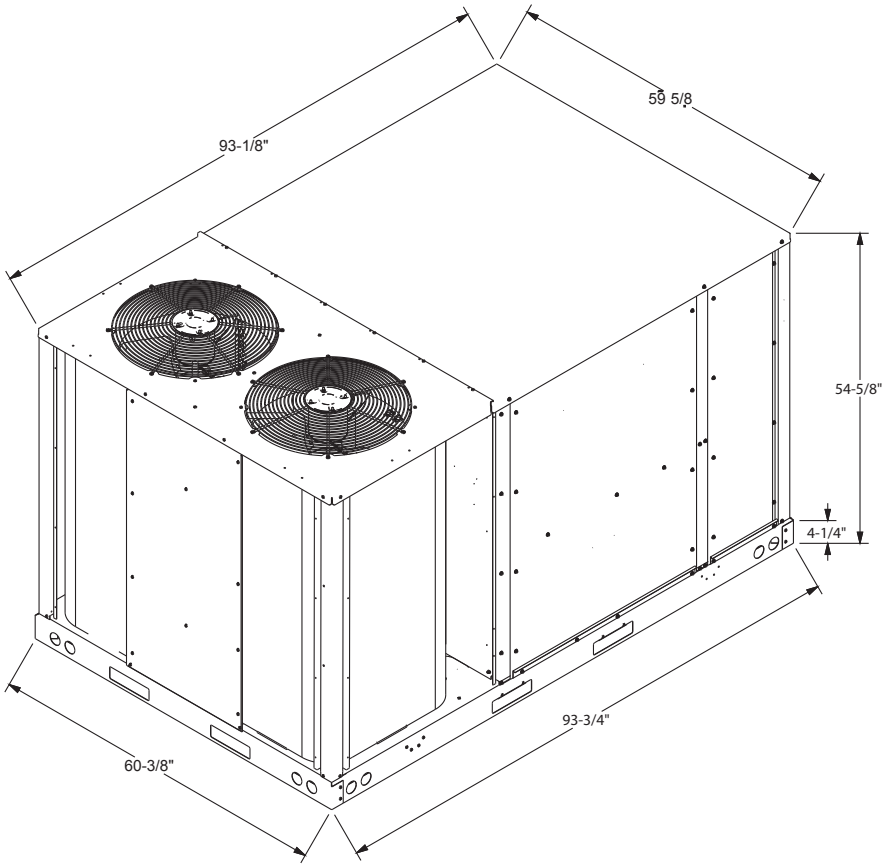
MODEL SIZE	DIM "A"
3 ton AC	39 7/8"
4 ton AC	39 7/8"
5 ton AC	39 7/8"
6 ton AC	43 1/2"

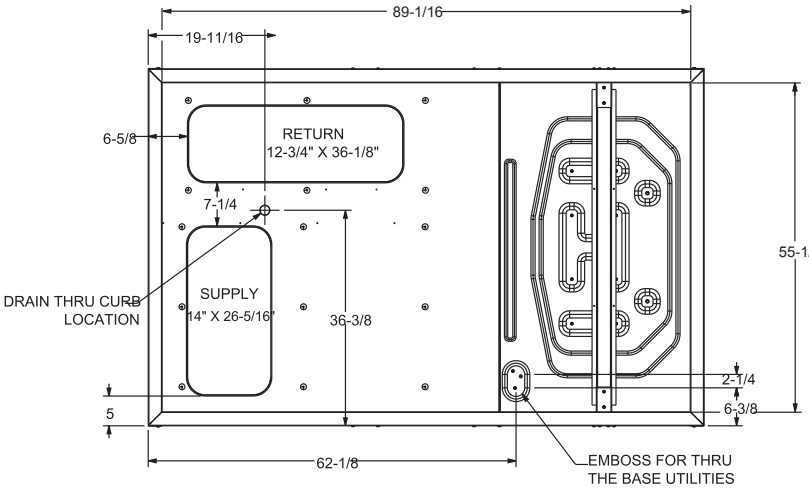


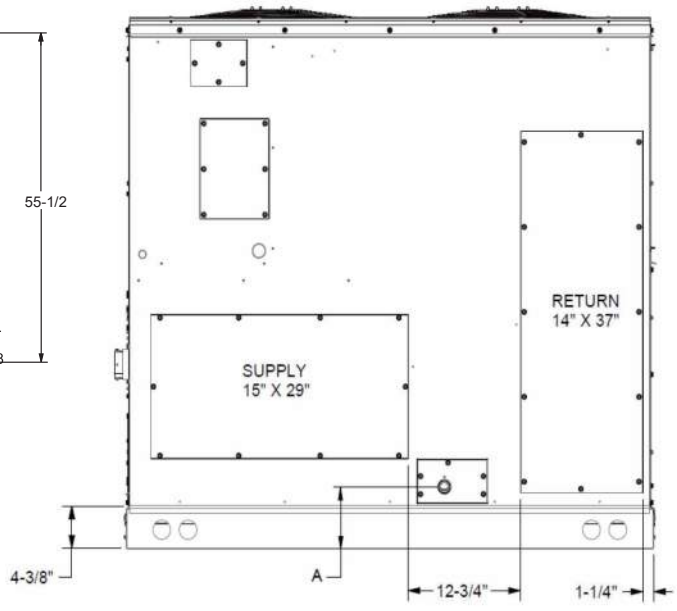


BOTTOM VIEW

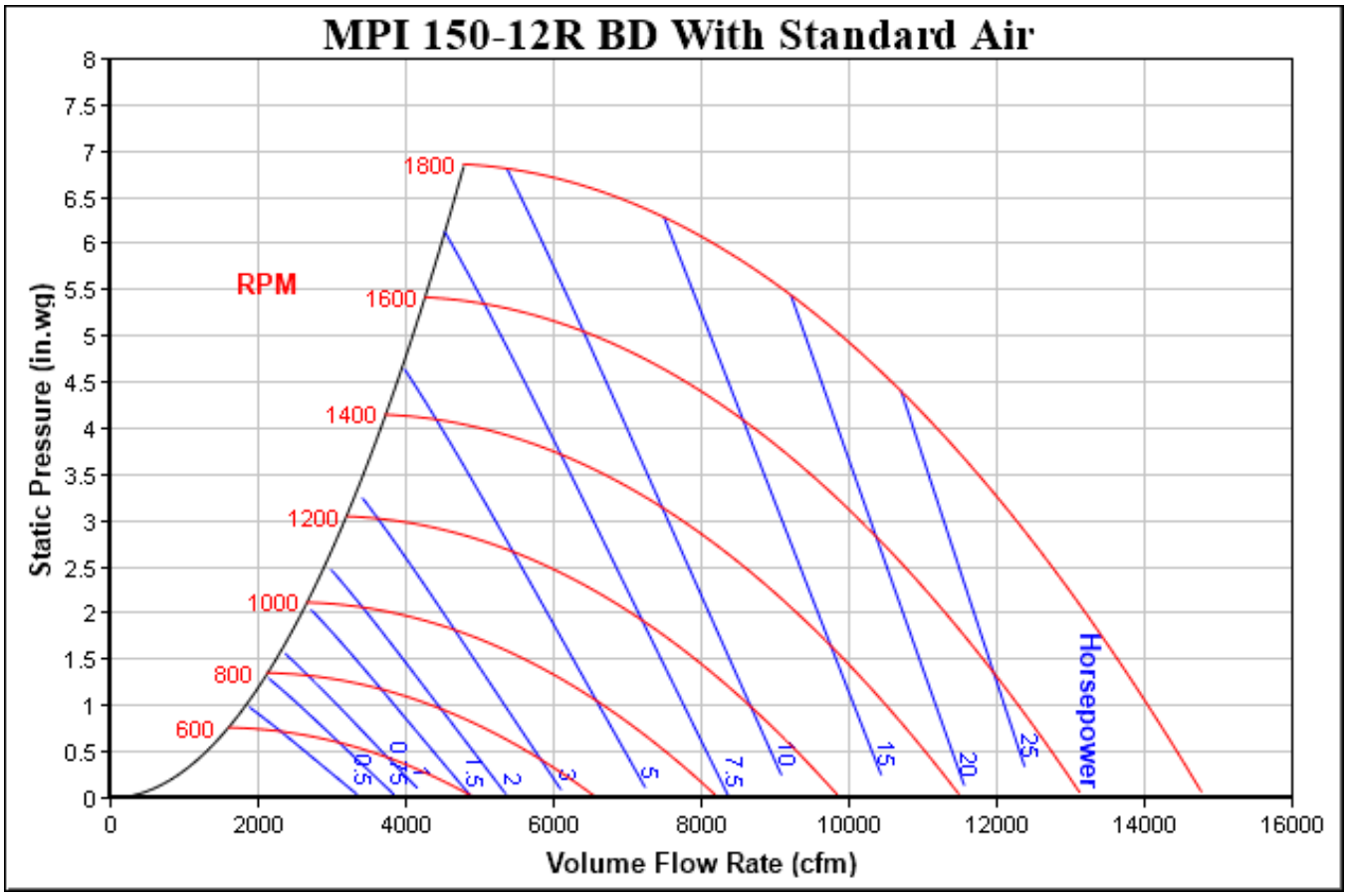

MPI 110-10R DD With Standard Air
Static Pressure (in.wg)
Volume Flow Rate (cfm)
RPM
1300
1200
1100
1000
900
800
700
600
Torque (oz-ft)
15
20
30
40
50
60
70
80
90
100
120
140
160
0
0.2
0.4
0.6
0.8
1
1.2
1.4
1.6
1.8
2
2.2
2.4
0
500
1000
1500
2000
2500
3000
3500
4000
4500







UNIT	DIM "A"
DSC 090	9"
DSC 102	9"
DSC 120	6½"
DSC 150	6½"


MPI 150-12R BD With Standard Air
Static Pressure (in.wg)
Volume Flow Rate (cfm)
RPM
1800
1600
1400
1200
1000
800
600
Horsepower
0.5
0.75
1
1.5
2
3
5
7.5
10
15
20
25
0
2000
4000
6000
8000
10000
12000
14000
16000
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
5.5
6
6.5
7
7.5
8

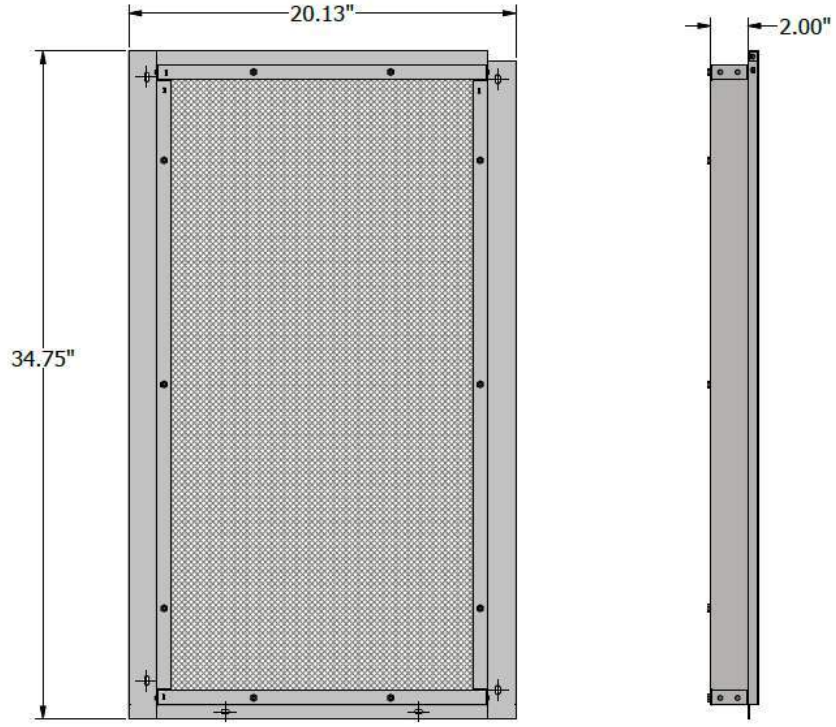
281-987-8400 • 281-987-9494 (fax)
1318 Buschong, Houston, TX 77039
www.mcdanielmetals.com

130-DK-036-5

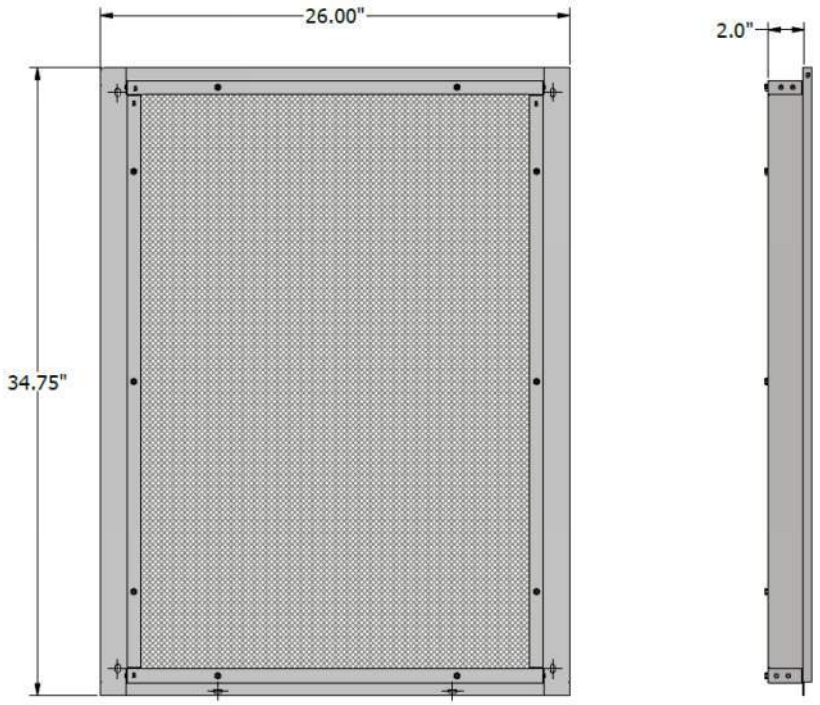
COIL GUARD FOR DAIKIN
DBC/G/H036/048, DBC/G060,
DFC/G/H036/048/060, DRC/G036
0270L02669MC

Instructions

Remove the guards from the box and inspect for damage. Secure the coil guards to the the unit covering the condenser coil with screws provided. Each guard is numbered.



GUARD 1
END GUARD

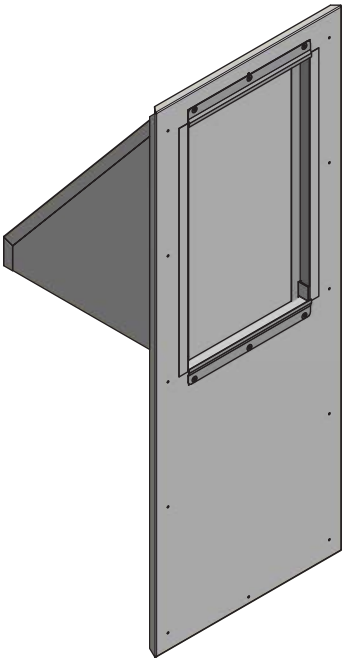


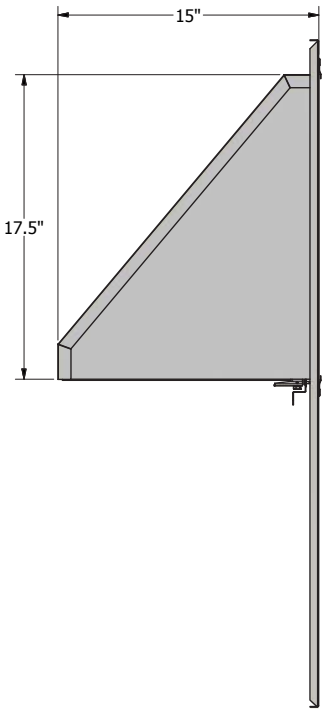
GUARD 2
SIDE GUARD

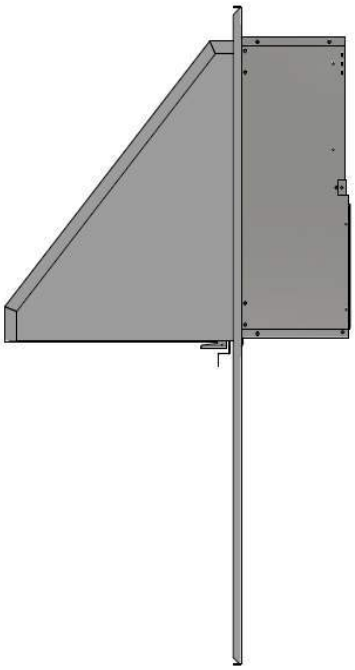
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www.mcdanielmetals.com

110-DK-036/ 112-DK-036

MANUAL/ MOTORIZED 25% FRESH AIR DAMPER FITS DAIKIN DB, DF, DR 036-072
0270L02708MC







MOTORIZED

FEATURES

110-DK-090 MANUAL DAMPER

- PROVIDES UP TO 25% FRESH AIR
- SLIDE DAMPER FOR EASY ADJUSTMENT
- WEIGHS 13 POUNDS

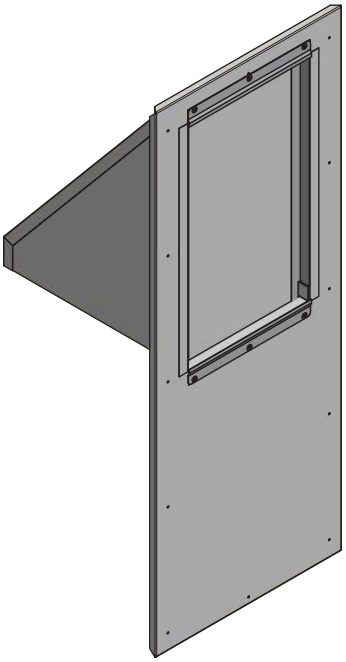
112-DK-090 MOTORIZED DAMPER

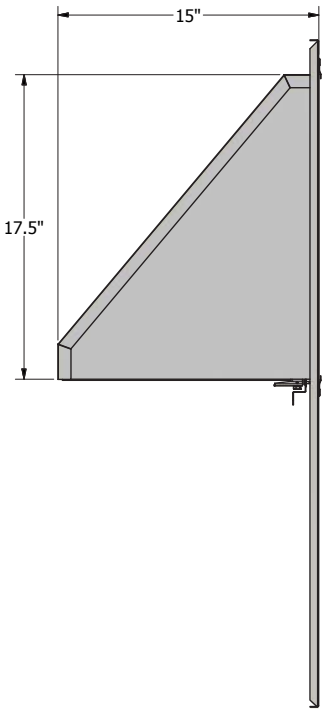
- 24VAC DAMPER MOTOR WITH SPRING RETURN
- FACTORY WIRED FOR EASY CONNECTION
- WEIGHS 15 POUNDS
- FITS ALL 7.5 - 12.5 TON PACKAGE UNITS IN ALL FUELS ALL DAMPERS PAINTED TO MATCH DAIKIN

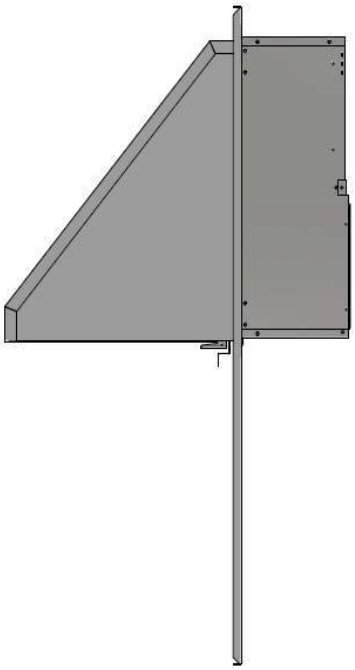
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www.mcdanielmetals.com

110-DK-090/ 112-DK-090

MANUAL/ MOTORIZED 25% FRESH AIR DAMPER FITS DAIKIN DB, DF, DR 90-150
0270L02709MC







MOTORIZED

FEATURES

110-DK-090 MANUAL DAMPER

- PROVIDES UP TO 25% FRESH AIR
- SLIDE DAMPER FOR EASY ADJUSTMENT
- WEIGHS 13 POUNDS

112-DK-090 MOTORIZED DAMPER

- 24VAC DAMPER MOTOR WITH SPRING RETURN
- FACTORY WIRED FOR EASY CONNECTION
- WEIGHS 15 POUNDS
- FITS ALL 7.5 - 12.5 TON PACKAGE UNITS IN ALL FUELS ALL DAMPERS PAINTED TO MATCH DAIKIN

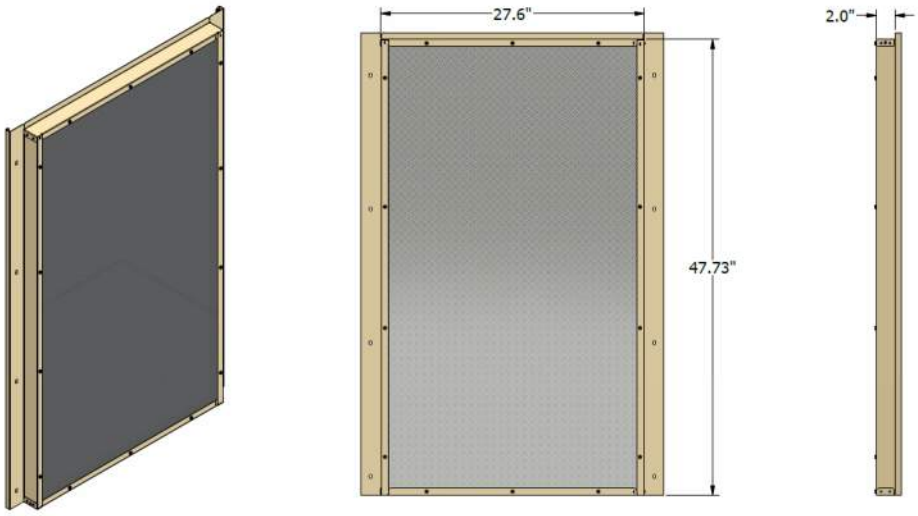
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www.mcdanielmetals.com

130-DK-090-11

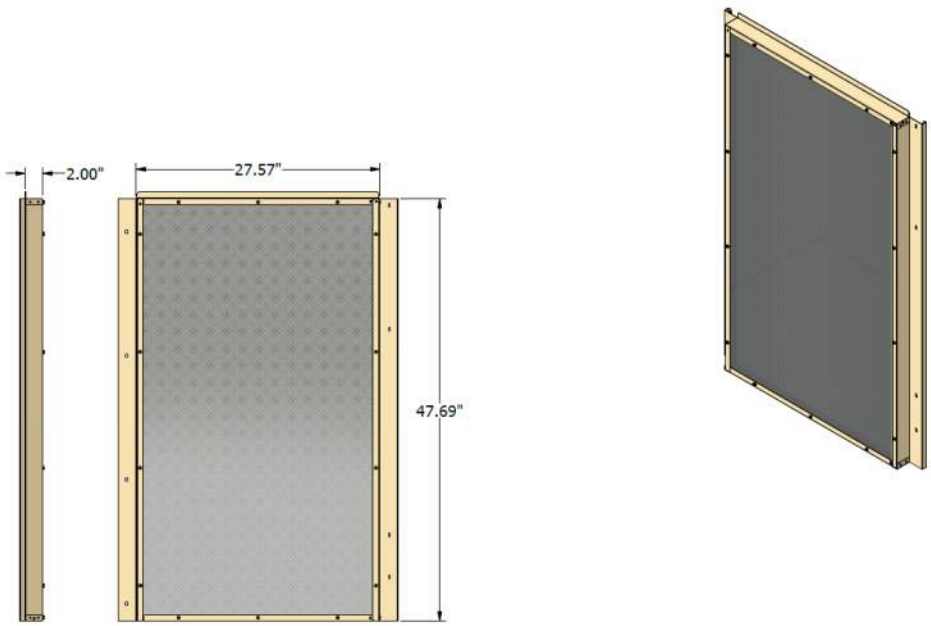
COIL GUARD FOR DAIKIN
DRC/G/H 7.5-10 TON and
DFC/G/H 7.5-12.5 TON
0270L02720MC

Instructions

Remove the guards from the box and inspect for damage. Secure the coil guards to the the unit covering the condenser coil using the included screw package. Each guard is numbered.



GUARD 1
NON SERVICE
SIDE

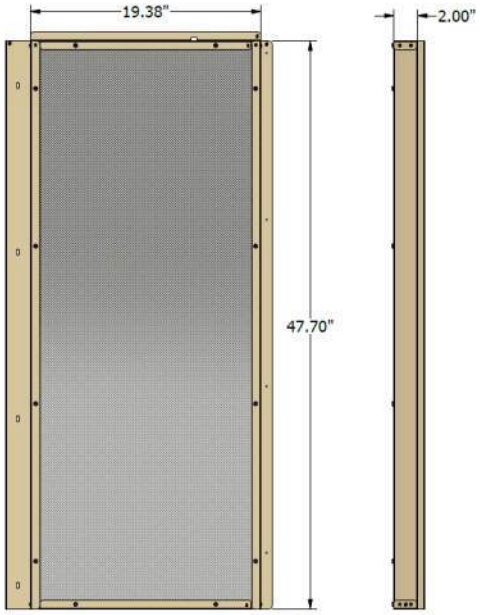


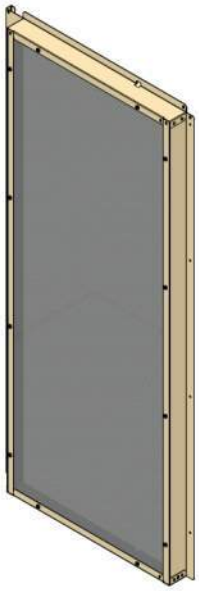
GUARD 2
SERVICE SIDE

130-DK-090-11

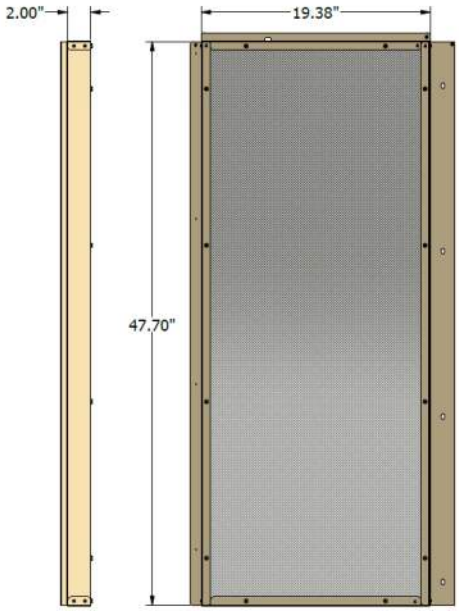
COIL GUARD FOR DAIKIN DRC/ G/H 7.5-10 TON and DFC/G/H 7.5-12.5 TON

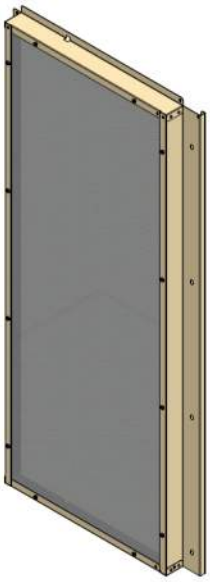
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GUARD 3
LEFT END





GUARD 4
RIGHT END

DAIKIN



DaikinThermostats.com

Introducing the NEW!

High Resolution
Full Color TouchScreen Display
Commercial Digital Thermostat

Now with
Wi-Fi Onboard
and a more reliable
and powerful
4x faster
processor



5.2"w x 3.9"h x 1"d



Android, iOS & Blackberry Venstar mobile apps available

Skyport CLOUD SERVICES

FEATURES for both commercial models: DT4272C & DT4273C

- Up to 4 Heat & 2 Cool Stages
- Gas Electric or Heat Pump Control
- Simple as you want Operation
- Switchable Programmable or Non-Programmable
- 365 Day Calendar for Holiday programming
- Adjustable Timers & Deadbands
- Setpoint Limiting
- Programmable Fan
- Accepts Remote Sensor or Outdoor Sensor

- Choice of English, Spanish or French
- Customizable Screensaver & Wallpaper
- API for 3rd Party Monitor & Control
- **Wi-Fi Built In** — Free mobile apps available
- Drop down current weather and forecast screen
- Title 24 Compliant

c UL us LISTED 4Z95

DT4273C

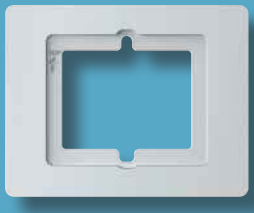
Also controls humidification & dehumidification

Accessories



TSTATGTAC-OS
Touch Screen
Outdoor/Indoor
Temperature Sensor

TSTATGTAC-WP
Touch Screen
Wall Plate





TSTATGAC-WS
Wired Sensor

DAIKIN COMMERCIAL WARRANTY

Models: DFC, DFG, DFH, DSC, DSG, DSH

Who Is Providing The Warranty?
This warranty is provided to you by Daikin Comfort Technologies Manufacturing, L.P. ("Daikin"), which warrants all parts of this heating or air conditioning unit, as described below.

To What Type Of Installations Does This Warranty Apply?
This warranty applies to heating and air conditioning units installed in buildings other than residences.

What Units Does This Warranty Not Cover?
This warranty does not apply to:
- Units that are ordered over the Internet, by telephone, or by other electronic means unless the unit is installed by a dealer adhering to all applicable federal, state, and local codes, policies, and licensing requirements.
- Units that are installed outside the United States, its territories, or Canada.
- Units that are operated in incomplete structures.
- Units that are installed in residential buildings.

What Problems Does This Warranty Cover?
This warranty covers defects in materials and workmanship that appear under normal use and maintenance.

Other Warranties
THIS WARRANTY IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES, WHETHER BY DAIKIN OR ANY OF ITS AFFILIATES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

What Problems Does This Warranty Not Cover?
Daikin is not responsible for:
- Damage or repairs required as a consequence of faulty installation or application.
- Damage as a result of floods, fires, winds, lightning, natural disasters, accidents, corrosive atmosphere, or other conditions beyond Daikin's control.
- Damage or the need for repairs arising from the use of components or accessories not compatible with this unit.
- Normal maintenance as described in the installation and operating manual, such as cleaning of the coils, filter cleaning and/or replacement, and lubrication.
- Parts or accessories not supplied or designated by the manufacturer.
- Damage or the need for repairs resulting from any improper use, maintenance, operation, or servicing.
- Damage or failure of the unit to start due to interruption, surge, or fluctuation in electrical service or inadequate electrical service.
- Any damage, or the need for any repairs, caused by frozen or broken water pipes, water damage, moisture intrusion, mold or other biological growth.
- Changes in the appearance of the unit that do not affect its performance.
- Replacement of fuses and replacement or resetting of circuit breakers.
- Damage or the need for repairs resulting from the use of unapproved refrigerant types or used or recycled refrigerant.

When Does Warranty Coverage Begin?
Warranty coverage begins on the "installation date." The installation date is one of two dates:
(1) The installation date is the date that the unit is originally installed.
(2) If the date the unit is originally installed cannot be verified, the installation date is three months after the manufacture date. The first four digits of the serial number (YYMM) on the unit indicate the manufacture date. For example, a serial number beginning with "2407" indicates the unit was manufactured in July 2024.

How Long Does Warranty Coverage Last?
The warranty lasts for a period of up to (1) 20 YEARS after the installation date for the heat exchanger (only applicable to units containing a heat exchanger) and (2) 5 YEARS after the installation date on all other parts.

This warranty period does not continue after the unit is removed from the location where it was originally installed.

The replacement of a part under this warranty does not extend the warranty period. In other words, Daikin warrants a replacement part only for the period remaining under the applicable warranty on the original part.

www.daikincomfort.com

For further information about this warranty, contact Homeowner Support by mail to 19001 Kermier Road, Waller, Texas 77484

Part No. PWDLCMED
07/2024

DAIKIN COMMERCIAL WARRANTY

Models: DFC, DFG, DFH, DSC, DSG, DSH

What Will Daikin Do To Correct Problems?
Daikin will furnish a replacement part, without charge for the part only, to replace any part that is found to be defective due to workmanship or materials under normal use and maintenance during the warranty period. Furnishing of the replacement part is Daikin's only responsibility under this warranty.

THE REMEDIES DESCRIBED IN THIS SECTION ARE DAIKIN'S ONLY RESPONSIBILITIES, AND THE OWNER'S ONLY REMEDIES, FOR ANY BREACH OF ANY WARRANTY.

What Won't Daikin Do To Correct Problems?
Daikin will not pay for:

- Labor, freight, or any other cost associated with the service, repair, or operation of the unit, the deinstallation of any defective part, or the installation of any replacement part.
- Electricity or fuel costs, or increases in electricity or fuel costs, for any reason, including additional or unusual use of supplemental electric heat.
- Lodging or transportation charges.
- Refrigerant.

WHETHER ANY CLAIM IS BASED ON NEGLIGENCE OR OTHER TORT, BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, OR ANY OTHER THEORY, NEITHER DAIKIN NOR ANY OF ITS AFFILIATES SHALL IN ANY EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOSS OF USE OF A UNIT, EXTRA UTILITY EXPENSES, OR DAMAGES TO PROPERTY.

How Can The Owner Receive Warranty Service?
If there is a problem with the unit, contact a licensed contractor.

To receive a replacement part, a licensed contractor must bring the defective part to a Daikin heating and air conditioning products distributor.

For more information about the warranty, write to Homeowner Support, 19001 Kermier Road, Waller, Texas 77484.

Where Can Any Legal Remedies Be Pursued?
ARBITRATION CLAUSE. IMPORTANT. PLEASE REVIEW THIS ARBITRATION CLAUSE. IT AFFECTS YOUR LEGAL RIGHTS.

1. *Parties*: This arbitration clause affects your rights against Daikin Comfort Technologies North America, Inc. and any of its subsidiaries, including but not limited to Daikin Comfort Technologies Manufacturing, L.P., and its or their employees or agents, successors, or assigns, all of whom together are referred to below as "we" or "us" for ease of reference.
2. ***ARBITRATION REQUIREMENT*: EXCEPT AS STATED BELOW, ANY DISPUTE BETWEEN YOU AND ANY OF US SHALL BE DECIDED BY NEUTRAL, BINDING ARBITRATION RATHER THAN IN COURT OR BY JURY TRIAL.** "Dispute" will be given the broadest possible meaning allowable by law. It includes any dispute, claim, or controversy arising from or relating to your purchase of this heating or air conditioning unit, any warranty upon the unit, or the unit's condition. It also includes determination of the scope or applicability of this Arbitration Clause. The arbitration requirement applies to claims in contract and tort, pursuant to statute, or otherwise.
3. ***CLASS-ARBITRATION WAIVER*: ARBITRATION IS HANDLED ON AN INDIVIDUAL BASIS. IF A DISPUTE IS ARBITRATED, YOU AND WE EXPRESSLY WAIVE ANY RIGHT TO PARTICIPATE AS A CLASS REPRESENTATIVE OR CLASS MEMBER ON ANY CLASS CLAIM YOU MAY HAVE AGAINST US OR WE AGAINST YOU, OR AS A PRIVATE ATTORNEY GENERAL OR IN ANY OTHER REPRESENTATIVE CAPACITY, TO THE MAXIMUM EXTENT PERMITTED BY LAW. YOU AND WE ALSO WAIVE ANY RIGHT TO PARTICIPATE IN ANY CLASS OR REPRESENTATIVE ACTION IN ANY FORM, INCLUDING ANY CLASS ARBITRATION, OR ANY CONSOLIDATION OF INDIVIDUAL ARBITRATIONS.**
4. *Discovery and Other Rights*: Discovery and rights to appeal in arbitration are generally more limited than in a lawsuit. This applies to both you and us. Other rights that you or we would have in court may not be available in arbitration. Please read this Arbitration Clause and consult the rules of the arbitration organizations listed below for more information.
5. ***SMALL CLAIMS COURT OPTION*: YOU MAY CHOOSE TO LITIGATE ANY DISPUTE BETWEEN YOU AND ANY OF US IN SMALL CLAIMS COURT, RATHER THAN IN ARBITRATION, IF THE DISPUTE MEETS ALL REQUIREMENTS TO BE HEARD IN SMALL CLAIMS COURT.**
6. *Governing Law*: For residents of the United States, the procedures and effect of the arbitration will be governed by the Federal Arbitration Act (9 U.S.C. § 1 et seq.) rather than by state law concerning arbitration. For residents of Canada, the procedures and effect of the arbitration will be governed by the applicable arbitration law of the province in which you purchased your unit. The law governing your substantive warranty rights and other claims will be the law of the state or province in which your unit was installed. Any court having jurisdiction may enter judgment on the arbitration award.

Part No. PWDLCMED
07/2024

DAIKIN COMMERCIAL WARRANTY

Models: DFC, DFG, DFH, DSC, DSG, DSH

7. *Rules of the Arbitration*: If the amount in controversy is less than $250,000, the arbitration will be decided by a single arbitrator. If the amount in controversy is greater than or equal to $250,000, the arbitration will be decided by a panel of three arbitrators. The arbitrator(s) will be chosen pursuant to the rules of the administering arbitration organization. United States residents may choose JAMS (1920 Main Street, Ste. 300, Irvine, CA 92614, www.jamsadr.com) or, subject to our approval, any other arbitration organization. In addition, Canadian residents may choose the ADR Institute of Canada (234 Eglinton Ave. East, Suite 405, Toronto, Ontario, M4P 1K5, www.amic.org). These organizations' rules can be obtained by contacting the organization or visiting its website. If the chosen arbitration organization's rules conflict with this Arbitration Clause, the provisions of this Arbitration Clause control. The award of the arbitrator(s) shall be final and binding on all parties.
8. *Location of the Arbitration Hearing*: Unless applicable law provides otherwise, the arbitration hearing for United States residents will be conducted in the federal judicial district in which you reside (in your hometown area) or, for Canadian residents, in the province in which you reside, and if you choose, will be in person.
9. *Costs of the Arbitration*: Each party is responsible for its own attorney, expert, and other costs and fees unless applicable law requires otherwise. Each party is also responsible for one-half of any costs and fees charged by the arbitration organization and arbitrator(s) to administer the arbitration to the maximum extent permitted by law or rule. Where permissible by law, the prevailing party may be required to reimburse the other party for the costs and fees of the arbitration organization and arbitrator(s) in whole or in part by decision of the arbitrator(s) at the discretion of the arbitrator(s).
10. *Survival and Enforceability of this Arbitration Clause*: This Arbitration Clause shall survive the expiration or termination, or any transfer, of the warranty on your unit. If any part of this Arbitration Clause, except waivers of class-action rights, is found to be unenforceable for any reason, the remainder of this clause and the warranty shall remain enforceable. If, in a case in which class-action allegations have been made, the waiver of class-action rights under this warranty is found to be unenforceable with respect to any part of the dispute, the parts of the dispute as to which the waiver of class-action rights have been found unenforceable will be severed and will proceed in court without reference or application of this Arbitration Clause. Any remaining parts will proceed in arbitration.

Part No. PWDLCMED
07/2024

Technical Features:

DCC Green LV (Color: Green metallic)

Performance Testing	Standard	Measure
Salt Spray Test	ASTM B117	Exceeds 10,000 hours
UV Resistance	ASTM D4587	900 hours
Cross Hatch Adhesion	ASTM D3359	5B
Mandrel Bend (Flexibility)	ASTM D522	Passed 1/12 inch (2 mm)
Cupping Test (Flexibility)	ASTM E643	Passed ¼ inch (7mm)
Persoz Pendulum Hardness Test	ASTM D4366-95	> 70 (24 hours)
Anti Microbial Test	ISO 22196 - JIS Z 2801	Passed
EIS Test (Corrosion/Impedance Test)	ISO 16773 – (1-5)	2 x 10^7 (Rc after 21 days)

Description:

DCC Green LV

EGuard DCC Green LV is Ultra Low VOC moisture curing polyurethane coating impregnated with 30% aluminum flakes specifically developed for all types of heat exchangers. Formulated with our new DCC Technology, EGuard DCC Green LV cures faster and increases adhesion, offering excellent sealing properties as well as the ultimate weathering resistance against corrosion in all types of environments and chemical vapor exposure conditions.

EGuard DCC Green LV resists microbial growth and contamination of coils by blocking dirt and dust adhesion. Micro-organisms such as fungi, mildew, stain causing bacteria, and algae can add to the corrosion process and cause unwanted odors. EGuard DCC Anti-Corrosion coatings can be applied before assembly of the unit, before or during installation or even years after installation. **EGuard** DCC Green LV used on heat exchangers maximizes ENERGY EFFICIENCY.

Application Method:

EGuard DCC Green LV coating system can be applied with high pressure air-assisted coating equipment. Total penetration on coils 6 rows or greater is achieved through the flooding process in combination with high pressure air-assisted coating equipment.

Begin by degreasing the surface with EGuard Coil Cleaner followed by the application of EGuard Fin Primer. The chemical reaction between the EGuard Fin Primer and the aluminum substrate creates the mechanical bonding for EGuard DCC Green LV to adhere to the substrate.

3201 SW 2nd Ave Fort Lauderdale, FL 33315 ph: 954-524-9272 fx: 954-761-7071 www.energyguardusa.com

DCC (Dual Chemistry Curing) Patented Technology:

Fast Drying: 15 Minutes to touch.

Engineering Specification for Coil Coatings:

- The anti-corrosion treatment on the condenser coil against marine and industrial conditions must be metallic impregnated polyurethane to enhance heat conductivity. No epoxy shall be allowed to prevent UV effects.
- The UV resistance must past the ASTM D4587: 900 hours.
- The anti-corrosion treatment must be of at least two layers. It must exist of a metal oxide layer which will protect condenser coils from the corrosive conditions of marine and industrial environment.
- The anti-corrosion treatment shall be in the form of **two layers**:
    - **The conversion layer is strong and inert metal oxide. This layer is chemically bonded to the base aluminum fin material.**
    - **The top layer consists of a polyurethane metallic pigmented by a mixture of leafing and non-leafing aluminum flakes. The binding material is elastic which allows durability for expansion and contraction of the fins at temperature fluctuations. The coating is dirt repellent to prevent clogging of the fin package.**
    - **The top layer has an EPA approved low-VOC record.**
- The adhesion must past the ASTM D3359; 5B.
- The Hardness must past the ASTM D4366-95; >70 (24 hours).
- The anti-corrosion treatment is to be a post coat thereby providing a complete barrier at the bonding of the fin and tube, to prevent galvanic corrosion.
- The Coating must have passed the following accelerated corrosion tests (or equivalent):
    - ASTM B 117: Salt Spray Test: 10,000+ Hours
    - EIS Test: Electrochemical Impedance Test: Rc 2 x 10^{7} after 21 days
- The flexibility of the binding material must have proven properties to allow the expansion and contraction of the heat exchange surface. This is achieved by a polyurethane binding material.
    - Must past the ASTM D522: 1/12 inch (ISO 1519 (2mm mandrel))
    - Must past the ASTM E643 :1/4 inch (ISO 1520; (7mm cupping))
- The color of the coating is suitable of heat rejection and reflection. (Metallic)

Product Series:

For detailed Information visit our website at www.energyguardusa.com for product data sheets and MSDS information.

Five (5) Year Limited Warranty:

Standard

3201 SW 2nd Ave Fort Lauderdale, FL 33315 ph: 954-524-9272 fx: 954-761-7071 www.energyguardusa.com

1959 Saratoga Blvd., #202
Corpus Christi, TX 78417
Phone: 361-854-7768
Fax: 361-854-7782

PERRY MECHANICAL SYSTEMS

3623 W. Alberta Rd.
Edinburg, TX 78539
Phone: 956-357-2928
Fax: 956-386-1255

Submittal Data

Date: February 19th, 2026
Project: STISD EDINBURG VFDs

We are pleased to submit the following for: ☐ **Record** ☒ **Approval**

Equipment: VFD, Tag: VFD – AHU-1, 2, Cafeteria 4, 5, 6, (Cafeteria-1 NEMA-1)
(9) Danfoss VFD-HVAC Variable Frequency Drive, complete with the following:

-208-230/3ph
-3 Contactor Bypass
-Main Disconnect
-Drive fusing
-6 -year parts warranty from ship date

Clarification/exclusions:
-Factory startup not included.

Submittal Schedule

This schedule includes the products supplied as part of this submittal.

Qty	Schedule Tag / Equipment ID	Motor HP	Drive Data			
			Product ID	Voltage	Enclosure	Frame Size
1	VFD-AHU-2	2	S102002T1E013CMD2XXSXXZ2XG XXXXXXXX0XXXXX	208 VAC	NEMA 1	A
1	VFD-AHU-1	5	S102005T1E013CMD2XXSXXZ2XG XXXXXXXX0XXXXX	208 VAC	NEMA 1	A
1	VFD-CAFÉ-1	7.5	S1027H5T1E013CMD2XXSXXZ2XGX XXXXXXXXXXXXX	208 VAC	NEMA 1	B
Configuration: Danfoss VLT HVAC drives with three-contactor electro-mechanical bypass, disconnect, drive fusing.						



Qty	Schedule Tag / Equipment ID	Motor HP	Drive Data			
			Product ID	Voltage	Enclosure	Frame Size
2	VFD-CAFÉ-6, EDINBURG LIBRARY	1.5	S1021H5T1E3R3CMD2XXSXXZ2X GXXXXXXXX0XXXXX	208 VAC	NEMA 3R	A
1	VFD-RTU-2	3	S102003T1E3R3CMD2XXSXXZ2X GXXXXXXXX0XXXXX	208 VAC	NEMA 3R	A
3	VFD-RTU-3, CAFÉ-4, 5	5	S102005T1E3R3CMD2XXSXXZ2X GXXXXXXXX0XXXXX	208 VAC	NEMA 3R	A
Configuration: Danfoss VLT HVAC drives with three-contactor electro-mechanical bypass, disconnect, drive fusing.						

ELECTRO-MECHANICALLY CONTROLLED BYPASS (EMB) FEATURES

General Features

All optional features shall be built, mounted and tested by Danfoss. The factory warranty will apply to the entire assembly as shipped. All options will carry a UL / C-UL Enclosed Industrial Control Panel label. All optional devices will be factory tested as assembly.

Bypass Power Features

- *Three-Contactor bypass* will be provided that allows operation of the motor via line power in the event of a failure of the VFD. Motor control selection shall be through either a VFD output contactor or a bypass contactor that is interlocked to ensure that both contactors are not energized simultaneously.
- *Main input disconnect* will be provided that removes power from both the bypass and VFD.
- *VFD-only, fast acting input fuses* will be provided.
- *Overload protection* will be supplied in bypass mode.
    - Adjustable current setting for complete motor protection when operating on line power.
    - Overload protection shall include phase loss and phase imbalance protection.
    - Visual indication of an overload trip condition shall be displayed on the VFD keypad.
    - Resetting an overload trip condition shall not require the opening of the enclosure door for safety reasons and shall be accomplished via a digital input, door mounted device (drive keypad), or over the serial communications.
- *A third contactor*, the drive input contactor, will be supplied. This allows powering of the VFD with the motor off or operating in bypass mode for testing, programming and troubleshooting purposes.

Bypass Interface and Control Features

- *Bypass or VFD selection shall be via a DRIVE – OFF –BYPASS – TEST selector switch*.
- A BYPASS pilot light will illuminate when operating in bypass mode.

- The TEST position shall allow the ability to supply power to the drive for testing purposes while running the motor in bypass.
- Selection of Bypass or VFD operation will be by any one of the following: Manually via the VFD keypad, remotely via a contact closure from the BMS system, commanded over the communication network or automatic bypass operation based on VFD programming.
- Bypass package will include an *External Safety* interlock that will disable motor operation in either bypass or VFD mode when open.
- **EMB2** control package will be provided. This package includes the following features:
    - There shall be complete *Common Start/Stop command* when operating in either Bypass or VFD mode. While operating in Bypass mode, the keypad shall allow the selection of Hand or Remote motor starting. In Hand and Bypass modes, pushing the keypad start button shall initiate motor operation via line power. When in Remote and Bypass modes are selected, the motor shall start just as it would have in VFD and Remote mode. This start source can be via either a hardwired start command, the VFD's real time clock or a command over BAS communication. This feature allows energy savings over standard bypass packages by allowing nighttime shutdown schedules and load shedding even with a VFD failure. Bypass packages that only allow common remote start / stop command when this command is hardwired to the package are not acceptable.
    - Selectable *Run Permissive* logic shall operate in either VFD or bypass operation. When activated, any command to start the motor, in either Hand Bypass, Remote Bypass, Hand VFD or Remote VFD shall not start the motor, but instead close a relay contact that is used to initiate operation of another device, such as an outside air damper. A contact closure from this device shall confirm that it is appropriately actuated and the motor shall then start.
    - *Firemode* operation input shall be available. When closed, the motor will run in bypass mode regardless of operating mode selected and will ignore calls to stop. These include the opening of the external safety interlock circuit or the tripping of the motor overload.

Additional Protective features

In additional to the power and operational protective features listed above, each bypass will include the following:

- Low voltage contactor operation shall be maintained to 70% of the package's nominally rated voltage. This will ensure VFD operation on low voltage conditions that would otherwise be interrupted due to contactor dropout.

The VFD shall be able to operate the motor at a reduced load with the loss of any one of the three phases of power. Contactors shall remain closed regardless of which phase is lost. This will ensure VFD operation on single-phase conditions that would otherwise be interrupted due to contactor dropout.



DRIVE FEATURES – OPERATOR INTERFACE

The VLT®HVAC Drive

The VLT HVAC Drive Series is a microprocessor-based, high frequency IGBT-based, PWM AC drive with control functions and software designed solely for the unique needs of HVAC systems. The VLT HVAC Drive uses state-of-the-art Voltage Vector Control to supply full rated motor voltage at rated load and frequency, full motor performance without derating, high efficiency for both drive and motor, and a nearly perfect output sine wave. The diode-bridge rectifier and DC-link reactor provide a high displacement power factor at all speeds and loads and minimize power line

harmonics. The VLT HVAC Drive utilizes a common user interface for all units.

Fully Graphic, Multilingual Display

The VLT HVAC Drive uses a large, bright, backlit graphic display to provide complete drive information at a glance. The logical arrangement of all elements simplifies the setup, operation and monitoring of the drive. Choose from 25 different items to display, including input reference, motor current, hours run, output frequency, horsepower, kW or kWh. Or select from custom units, such as GPM or HP and calibrate the maximum value to the maximum frequency of the unit. After programming one drive, the keypad can be used to transfer the same settings to all other drives. Drive can run without the keypad in place to assure tamper-proof operation. Drive status is shown even with the keypad removed.

LED Indication

Three LEDs are provided on the VLT HVAC Drive for indication of power applied, warning and fault. Upon power up, all LEDs will briefly light as a lamp test.

Alarm – Will flash red when the drive has registered a fault condition which has caused the drive to shut down.
Warning – Will flash yellow to indicate a situation exists that exceeds the normal drive/system parameters, and if that condition continues, a trip may be imminent.
On – Will glow green to indicate that the VFD is connected to AC power (line voltage is present).

Operating Keys

Hand On – Starts the drive regardless of remote start/stop contact (assuming safety interlock is closed). The speed of the drive will generally be controlled manually via the keypad "+" and "–" buttons.
Off – Shuts the drive down regardless of other commands.
Auto/On – The drive will start and stop via the external contact closure (building automation time clock). The speed is generally controlled via the building automation signal (4 to 20 mA, 0 to 10 V DC, etc.).
Reset – Will reset any trip level fault (not trip lock) if the drive is not set for infinite automatic fault resets.

Directional Keys

Right / Left / Up / Down arrows – Used as the electronic potentiometer to manually control the speed in the Hand/Start mode. All four keys are active during operation as well as programming. They provide the ability to move the cursor around the display, or sequence through display values.

Programming Keys

Status – Used to display operational data and status.
Cancel – Used to cancel the last programming command so the change is not carried out.
OK – Used to confirm that the last programming change should be saved to memory.
Back – Used to exit present display or menu to the previous display or menu.
Quick Menu – Used for programming the VLT HVAC Drive for the most typical applications.
Main Menu – Used to access all parameters for programming. It can switch directly from this mode to quick menu.
Alarm Menu – Used to access all fault and warning data.
Info Key – Accesses an on-board manual that gives detailed explanation of a parameter.

PROGRAM OPTIONS

Application-Specific Software

The VLT HVAC Drive was designed specifically for the HVAC market. This specialization has allowed Danfoss to factory program and configure the VLT HVAC Drive to make it ready to use, out of the box. This eliminates the time-consuming and often confusing job of selecting the correct parameters in the field. For the advanced user, the parameters are logically grouped, making modifications simple.

Customized text fields are available to show user-specific data. Four independent setups are available for unmatched flexibility.

Menu Structure

Quick Setup Menu – Contains the 14 required setup parameters to easily start the application.
HVAC Application Menu – Easy access to the most relevant parameters for each of the most common HVAC applications.
Personal Menu – Contains up to 20 user-selectable parameters for customized access.
Changes Made Menu – Provides easy access to previously modified parameters

Keypad Features

- Hot-pluggable with upload and download capabilities
- On-screen scroll bars and graphs
- Up to five separate meters displayed simultaneously
- Two-level password protection
- Plain language alarms and warnings
- Remote keypad mounting kits available

DRIVE FEATURES – MOTOR AND DRIVE INTERACTION

Constant-Torque Start

The VLT HVAC Drive's constant-torque start mode provides full torque to accelerate different loads until the drive reaches the setpoint. Breakaway current can be set up to 160% for up to 0.5 seconds for starting high friction loads.

Current Limit Circuit

Adjustable from 0 to 110% of the VLT HVAC Drive's rated current (factory set at 110%). If during acceleration the current required to accelerate the load exceeds the current limit, the VLT HVAC Drive will stop accelerating until the motor current is reduced to normal levels, at which time the load will continue to accelerate at the rate set by the acceleration time.

Three-Phase Output Current Measurement

The VLT HVAC Drive's software measures output current on all three phases. Phase grounding is detected instantly. Output contactors may be repeatedly used with no damage to the drive. Multiple motors may be run from one drive.

Advanced Motor Protection

The VLT HVAC Drive features integrated electronic, thermal motor protection. The VFD calculates the motor temperature based on current, frequency, and time. This system allows for changing cooling conditions as speed and load vary. The drive can predict motor overheating and reports a % of thermal load.

Motor Preheat Circuit

This preheat function can be activated to avoid condensation on the motor windings when it is stopped.

Stall Protection

The VLT HVAC Drive provides protection against a stalled motor. When activated, this function can provide a warning or a fault condition caused by excessive motor current at low speeds.

DRIVE FEATURES

DC-Link Reactor

A dual, 5% DC-link reactor on the positive and negative rails of the DC bus is standard equipment on the VLT HVAC Drive. This reactor reduces the level of harmonics reflected back into the building power system without causing a voltage loss at the drive's input and reducing efficiency as an external AC line reactor would. This reactor also improves input power factor. The reactor is non-saturating (linear) to provide full harmonic filtering throughout the entire load range. In performance, the DC-link reactor is equivalent to a 5% AC line reactor.

Power Line Protection

Power line voltage surge protection is provided by means of input Metal Oxide Varistors (MOVs). This protects the diodes in the VLT HVAC Drive's 3-phase full wave diode bridge. The DC-link reactor also acts to reduce input current caused by power line disturbances.

Sleep Mode

Automatically stops the drive when speed drops below set "sleep" level for specified time. Automatically restarts when speed command exceeds set "wake" level. Saves energy and reduces wear on driven equipment.

Run Permissive Circuit

Ability to accept a "system ready" signal assures that dampers or other auxiliary equipment are in the proper state for drive operation. This feature also provides the ability for the drive to send a "start signal applied" signal to the system to notify the auxiliary equipment of the drive's request to start.

Firefighter's Override Mode

Overrides all other commands to provide desired operation. Ignores most alarms including overload, overcurrent, overtemperature, and phase loss. When used with bypass, selectable to run from drive, from bypass, or switch from drive to bypass in the event of a drive failure.

Acceleration / Deceleration Rates

The VLT HVAC Drive can provide four individually controlled sets of acceleration/deceleration rates each from 1 to 3600 seconds. The shape of these curves may be automatically contoured to prevent tripping.

Plenum Rated

The VLT HVAC NEMA 1 or NEMA 12 drive is recognized by UL for installation in air handling compartments.

Auto Restarts

The VLT HVAC Drive can be automatically restarted up to 20 times or infinitely at 0 to 600 second intervals. If the application causes the drive to trip more than the number of trials set, the drive will stop operating and display the fault on the display screen. A manual reset will be required by means of the reset key, a digital input, or EIA–485 command. In cases of severe trips, as a safety feature, the drive's input power may have to be cycled to restart a fault.

Carrier Frequency

By using IGBTs, the VLT HVAC Drive can employ high switching frequencies, so the motor current is practically sinusoidal. Audible motor noise can also be minimized by adjusting the switching frequency. These frequencies can be set or adjust themselves automatically to fit the application.

Input Power

The VLT HVAC Drive is equipped with an automatic sustained power or phase loss circuit. The VLT HVAC Drive will provide a full rated output with an input voltage as low as 90% of the nominal. The drive will continue to operate with reduced output with an input voltage as low as 164 volts for 208/230 volt units, 313 volts for 460 volt units, and 394 volts for 600 volt units.

Automatic Motor Adaptation (AMA)

Knowing motor stator resistance, the drive automatically optimizes performance and efficiency. The motor does not have to be run or decoupled from the load for the AMA setup to be performed.

Automated Frequency Avoidance / Critical Frequency Lockouts

For applications where it may be necessary to avoid specific frequencies due to mechanical resonance problems in the driven equipment, the VLT HVAC Drive, with its Critical Frequency Lockout Function, makes it possible to set up to four different frequency ranges which will be avoided during operation of the drive. This feature can be programmed by simply activating the feature and pushing OK at the top and bottom points that you wish to avoid.

- Each critical frequency setting can avoid a frequency band which is from 1 to 100 Hz wide. If the reference signal defines that the VLT HVAC Drive is to operate within this critical frequency range, the critical frequency lockout function will keep the drive operating continuously within this range.
- When the frequency reference signal rises above the critical frequency maximum limit, the VLT HVAC Drive will allow the motor to accelerate through the critical frequency at the rate set by the acceleration rate.

Automatic Energy Optimization Circuitry

The Automatic Energy Optimization (AEO) function adapts the output of the drive to the specific motor and load connected. This circuit optimizes the system efficiency as system loads change. The AEO

function regulates the output voltage on the basis of the reactive current and the effective current. A savings of 3 to 10% in power consumption can be obtained with this function.

Preset Speeds

The VLT HVAC Drive allows for a maximum of 16 programmable preset speeds to be selected from the digital inputs.

Energy Monitoring

Real energy savings are always available without the additional expense of external equipment.

Real-Time Clock

Adds sophisticated performance to basic control schemes for increased comfort and energy savings.

Automatic High Ambient Derate

If the ambient temperature exceeds the normal limit, the drive can be set to warn of its overtemperature and continue to run, keeping the HVAC system functional. To control its temperature, the drive will reduce the output carrier frequency and then, if necessary, reduce the output current.

Preventive Maintenance Scheduling

The VLT HVAC Drive can monitor system usage and notify the operator when preventive maintenance is required.

Intelligent HVAC Controller

Four auto-tuning PIDs control the drive and up to three other devices, eliminating external controllers and reducing cost.

- Proportional: The proportional gain dictates the rate at which the deviation between actual and desired feedback signal is corrected. The higher the gain, the faster the response, but too high a gain can cause hunting and a large overshoot.
- Integral Time: The integral time continually compares the feedback value with the desired setpoint over time to make sure the setpoint is reached. The greater the integral time, the longer it takes to actually achieve the setpoint, but improves the system stability.
- Derivative: The derivative function monitors the rate at which the feedback is closing on the desired setpoint and slows the rate of approach to prevent overshooting. This function allows rapid accurate system control.

Built-in Communications

The VLT HVAC Drive is fully equipped for serial communication (EIA–485). Up to 31 drives can be connected to one serial bus up to 5,000 feet long.

Communicates directly with *BACnet MS/TP, Johnson Controls Metasys (N2), Siemens Building Technologies System 600 (FLN), and Modbus RTU* systems with no hardware changes or additional costs.

Broken Belt, Loss of Load

A minimum motor current value can be set to indicate the motor is not using any more current than to run at idle. This can be used to indicate a broken belt or coupler. This feature can also be used to detect when a motor is disconnected from the drive.

SPECIFICATIONS

Drive Input Power

Input voltage, 3 phase	200–240, or 380–460, or 525–600 VAC
Input voltage range for full output	Nominal ±10%
Undervoltage trip point	164, 313 VAC, or 394 VAC
Overvoltage trip point	299, 538, or 690 (792 for 100 HP and above) VAC
Input frequency	50 or 60 Hz, ± 2 Hz
Displacement Power factor	0.98 or greater at all speeds and loads
Total Power factor	0.90 or greater at full load and nominal motor speed

Drive Output Power

Output frequency	Selectable 0 to 120 Hz
Motor voltages	200, 208, 220, 230; 380, 400, 415, 440, 460; 550, 575 VAC
Continuous output current	100% rated current
Output current limit setting	Adjustable to 110% of drive rating
Current limit timer	0 to 60 seconds or infinite
Adjustable maximum speed	From minimum speed setting to 120 Hz
Adjustable minimum speed	From maximum speed setting to 0 Hz
Acceleration time	To 3,600 seconds to base speed
Deceleration time	To 3,600 seconds from base speed
Breakaway torque time	0.0 to 0.5 seconds (1.6 times motor nameplate current)
Start voltage	0 to 10%
DC braking time	0 to 60 seconds
DC braking start	0 to maximum frequency
DC braking current	0 to 50% of rated motor current

Environmental limits:

Efficiency	97% or greater at full load and nominal motor speed
Ambient operating temperature	14°F to 113°F frames A2–C2; 14°F to 104°F frames D1–E1
Humidity	< 95%, non-condensing
Altitude: maximum without derating	3,300 ft. (1,000 m)
Drive and options enclosure(s)	NEMA/UL Types 1, 12, 3R; as noted

Software

Lost speed reference action	Selectable to go to a preset speed, go to maximum speed, stay at last speed, stop, turn off, or stop and trip
Time delay for lost speed reference action	1 to 99 seconds
Adjustable auto restart time delay	0 to 600 seconds
Automatic restart attempts	0 to 20 or infinite
Automatic restart time delay	0 to 600 seconds between each attempt

Relay ON delay and relay OFF delay ..... 0 to 600 seconds
Maximum number of preset speeds..... 16
Maximum number of frequency stepovers..... 4
Maximum stepover width ..... 100 Hz
Maximum number of accel rates..... 4
Maximum number of decel rates..... 4
Delayed Start ..... 0 to 120 seconds

Protections:

Low frequency and high frequency warnings..... 0 to 120 Hz
Low current and high current warnings..... 0 to maximum current
Low reference and high reference warnings..... −999,999 to 999,999
Low feedback and high feedback warnings ..... −999,999 to 999,999
Ground fault ..... Protected
Motor stall..... Protected
Motor overtemperature..... Protected (Predictive motor temperature)
Motor Condensation..... Protected (Motor pre-heat circuit)
Pump No-Flow ..... Protected
Pump end-of-curve..... Protected
Dry pump ..... Protected
Short-cycle ..... Protected
Motor overload ..... Protected (Programmable action)
Vibration protection ..... Protected (Programming automated)

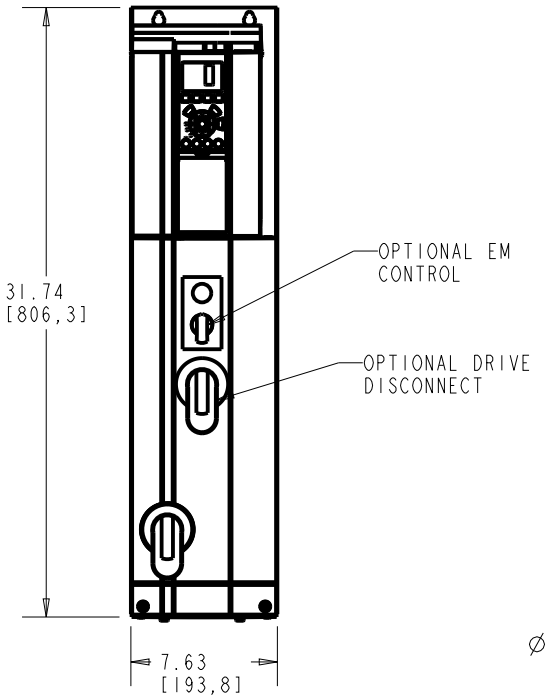
Control Connections

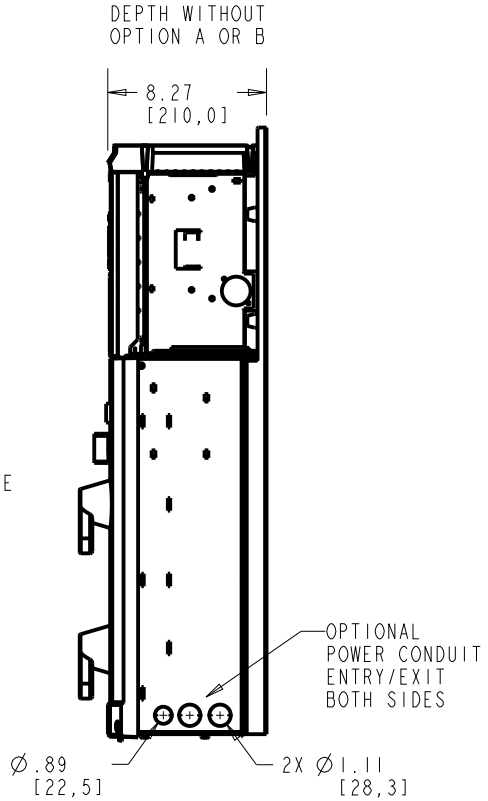
Follower signal, analog input ..... 2; selectable voltage or current, direct and inverse acting
Programmable digital inputs..... 6 (2 can be used as digital outputs)
Programmable analog outputs..... 1; 0/4 to 20 mA
Programmable relay outputs..... 2 standard Form C 240 V AC, 2 A; 1 or 3 additional optional
Auxiliary voltage ..... +24 V DC, maximum 200 mA

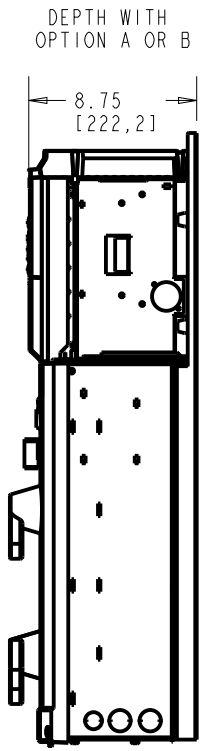
Control Optional

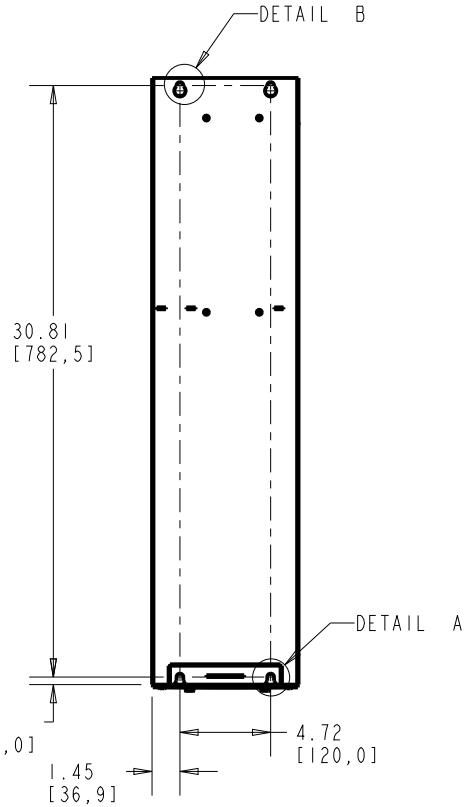
MCB 101 General Purpose I/O ..... 3 DI, 2 DO, 2 AI (voltage), and 1 AO (current)
MCB 105 Relay Card ..... 3 standard Form C 240 V AC, 2 A
MCB 107 24V DC Supply..... Allows external 24 V DC power connected to the HVAC Drive
MCB 109 Analog I/O ..... 3 AO(voltage), 3 AI(voltage,PT1000,NI1000), Battery backup

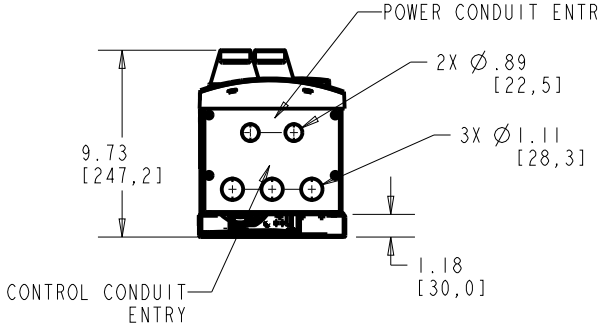
MECHANICAL DRAWINGS

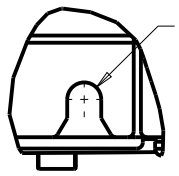


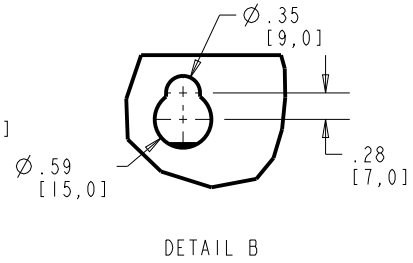












VFD-AHU-1, 2

CLEARANCE REQUIREMENT FOR AIR FLOW COOLING:

THE UNIT MUST BE INSTALLED VERTICALLY WITH THE MINIMUM CLEARANCE OF 3.94" [100.0mm] ON THE BOTTOM AND 1.50" [38.1mm] ON EITHER SIDE FOR UNIT COOLING.

UNIT APPROXIMATE WEIGHT: 35 Lbs [16 Kg]

FRAME SIZE A2 AND A3		
VOLTAGE	HP	KW
208/230	0.5-5	1.1-3.7
460/600	0.5-10	1.1-7.5

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PRO-E ENTRY BY/DATE:	CHECKED BY/DATE:
MG 3/02/07	
DESIGNED BY/DATE:	MFG. APPROVAL BY/DATE:
MG 3/02/07	
APPROVAL:	ENG. APPROVAL BY/DATE:

DANFOSS DRIVES
4401 N. BELL SCHOOL RD. LOVES PARK, ILLINOIS 61111 USA
(815) 639-8600 FAX (815) 639-8000

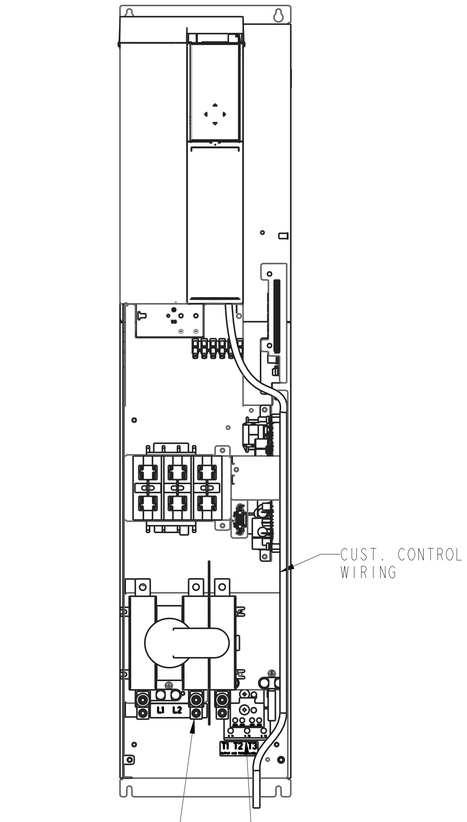
TITLE: DWG,REF,SUBMITTAL,A2-A3-TIER 2

LATEST E.C.N. NO.:	E.C.N. PRO-E ENTRY BY/DATE:	PLOT SCALE:	PRO-E FILE:	SHEET:	OF:	DRAWING NO.:	REV.:
SP10032	SAK 04/30/10	NONE	APU_A2-A3_MAIN_T2-T3	1	1	176U8485	A

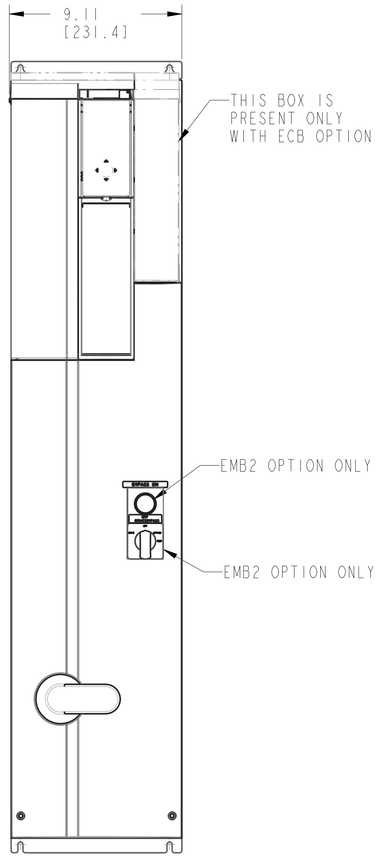
- NOTICE -

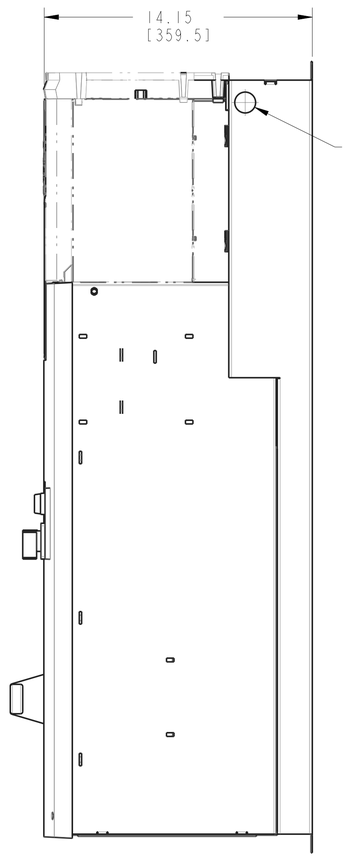
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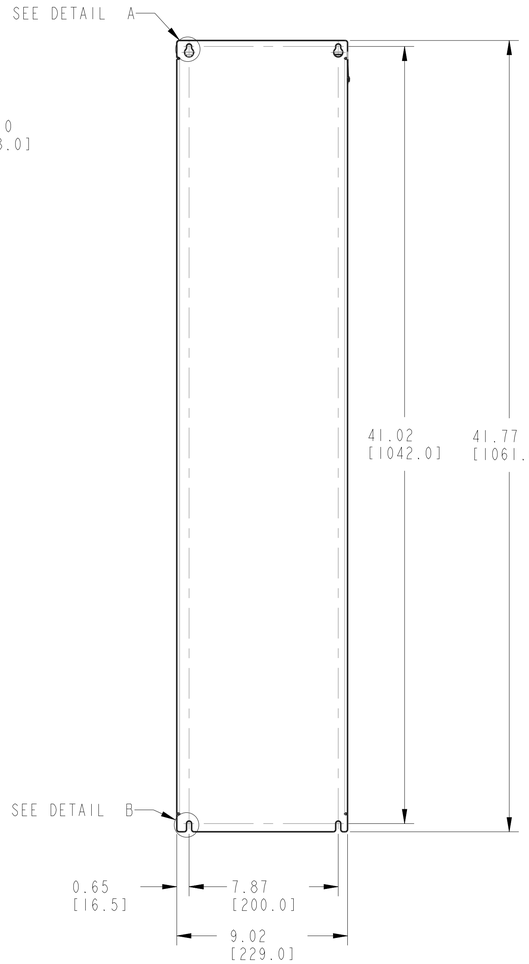
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REV	ECN NUMBER	ENTRY BY	DATE
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003	LP12030	DK	7/20/2012

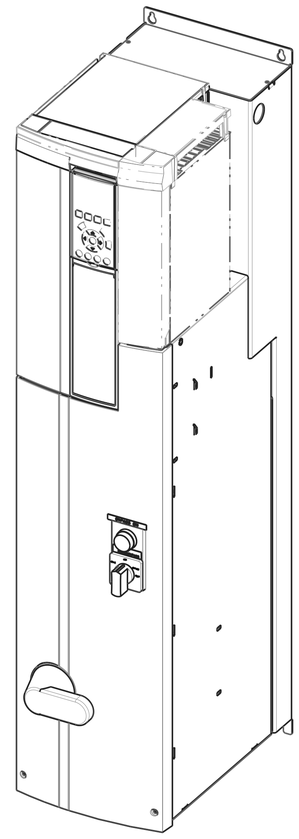


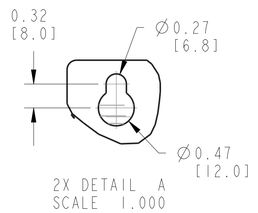
FRONT VIEW
FRONT COVER REMOVED



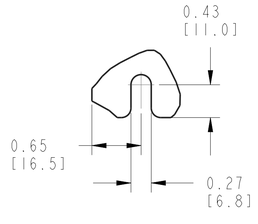




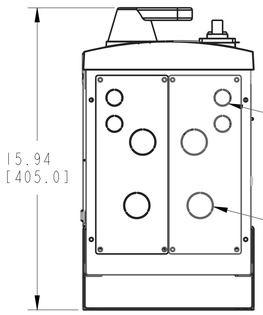




2X DETAIL A
SCALE 1.000



2X DETAIL B
SCALE 1.000



FRAME SIZE P2		
VOLTAGE	HP	KW
208	7.5	5.5
	10	7.5
	15	11
230	7.5	5.5
	10	7.5
	15	11
460	15	11
	20	15
	25	18
575	15	11
	20	15
	25	18

VFD-CAFE-1

CLEARANCE REQUIREMENT FOR AIR FLOW COOLING:

THE UNIT MUST BE INSTALLED VERTICALLY WITH THE MINIMUM CLEARANCE OF 7.87" [200mm] ON THE BOTTOM, 2.00" [50.8mm] ON THE TOP AND 1.50" [38.1mm] ON EITHER SIDE FOR UNIT COOLING.

UNLESS OTHERWISE SPECIFIED INTERPRET DIM. AND TOL. PER ASME Y14.5M-1994	PROPERTIES		
	MATERIAL		
.X±0.4 .XX±0.20 ∠±0.5	FINISH		
DIM. ARE IN MILLIMETERS	THICKNESS		
WEIGHTS ARE IN KILOGRAMS	EST. WEIGHT	84.0 Lbs [38.1 Kg]	
THIRD ANGLE PROJECTION	APPROVALS	INITIALS	DATE
	DRAWN	DK	12/20/10
	CHECKED		
	ENGR		

Danfoss
4401 N. BELL SCHOOL RD. LOVES PARK, ILLINOIS 61111 USA
(815) 639-8600 FAX (815) 639-8000

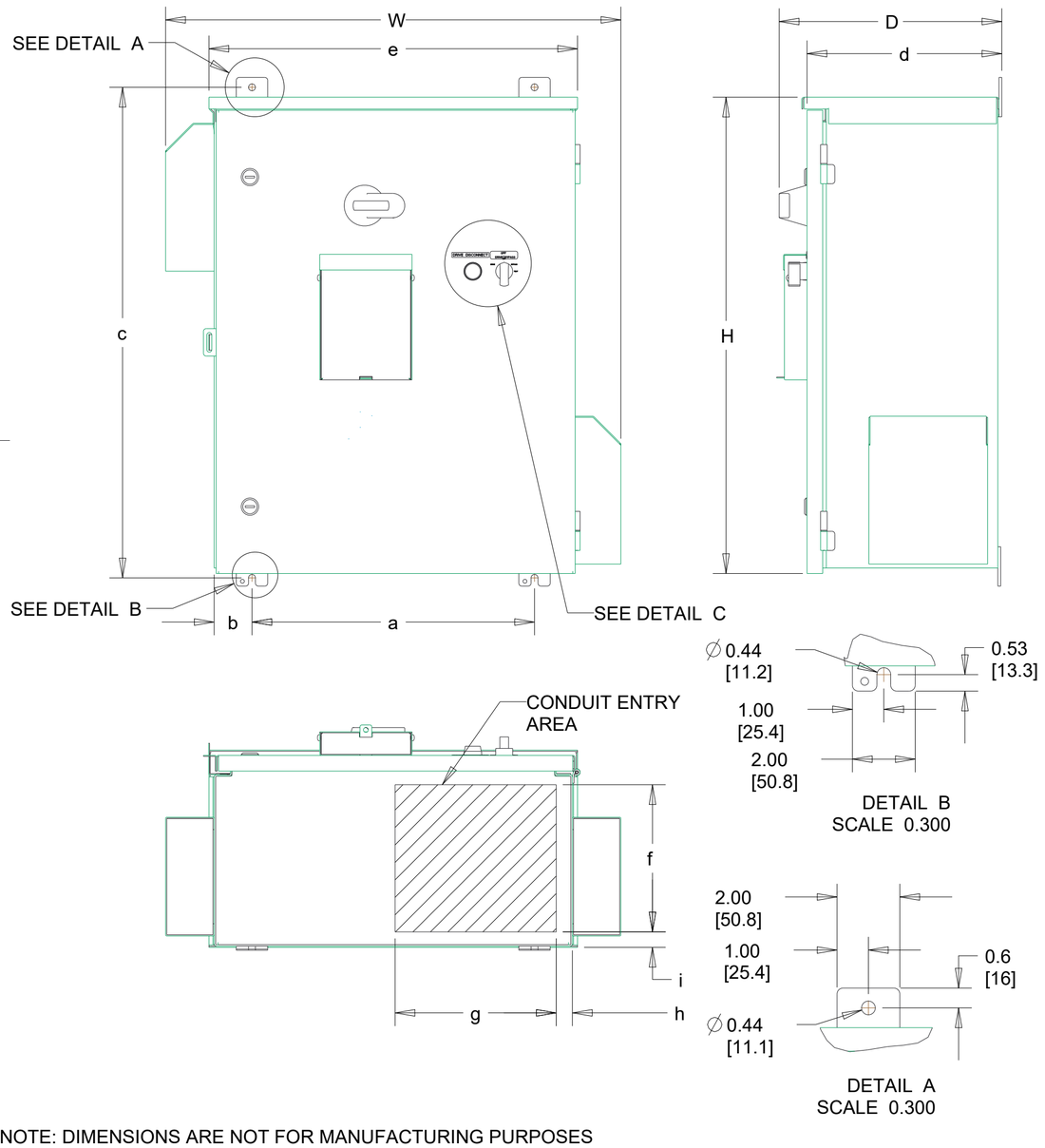
TITLE: DWG, SUBMITTAL, P2, BYPASS, P656

SIZE	MODEL	REV
D	177R0231	003
SCALE 0.250	DRAWING NO. 177R0201	SHEET 1 OF 1

208/230V	460/600V	NOTE	DIMENSIONS inches [mm] H	W	D	a	b	c	d	e	f	g	h	i	FIG.	Frame Size	Max. Weight
0.5HP-5HP	0.5HP-10HP	-	30.30 [770.7]	29.00 [736.6]	14.18 [360.2]	18.00 [457.2]	2.41 [61.2]	31.25 [793.8]	12.40 [315.2]	23.50 [596.4]	9.5 [241.3]	12.00 [304.8]	1.00 [25.4]	1.00 [25.4]	1	1	150 lbs.
7.5HP-10HP	15HP-25HP	NON BYPASS W/OUT OPTIONS* BYPASS W/OUT OPTIONS*															
7.5HP-10HP	15HP-25HP	NON BYPASS WITH OPTIONS* BYPASS WITH OPTIONS*	38.40 [975.1]	37.13 [943.0]	14.44 [366.8]	22.01 [559.0]	4.47 [113.5]	39.24 [996.7]	12.70 [321.8]	31.60 [802.8]	9.5 [241.3]	12.00 [304.8]	2.00 [50.8]	2.00 [50.8]	2	2/3	225 lbs.
15HP-20HP	30HP-40HP	-	38.40 [975.1]	37.13 [943.0]	14.44 [366.8]	22.01 [559.0]	4.47 [113.5]	39.24 [996.7]	12.70 [321.8]	31.60 [802.8]	9.5 [241.3]	12.00 [304.8]	2.00 [50.8]	2.00 [50.8]	2	2/3	300 lbs.
25HP-30HP	50HP-75HP	-	47.40 [1203.7]	44.38 [1127.2]	17.83 [452.8]	29.00 [736.5]	4.60 [116.9]	48.24 [1225.3]	16.06 [407.8]	38.86 [987.1]	9.5 [241.3]	12.00 [304.8]	2.00 [50.8]	2.00 [50.8]	2	4	375 lbs.
40HP-60HP	100HP-125HP	-	60.20 [1529.0]	46.18 [1173.0]	17.83 [452.8]	30.80 [782.2]	4.60 [116.9]	61.26 [1558.5]	16.06 [407.8]	40.66 [1032.7]	9.5 [241.3]	12.00 [304.8]	2.00 [50.8]	2.00 [50.8]	3	5	525 lbs.

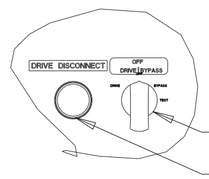
* OPTIONS INCLUDE:
CONTACTOR MOTOR SELECT, DUAL MOTOR, LINE REACTOR.

FIGURE 1



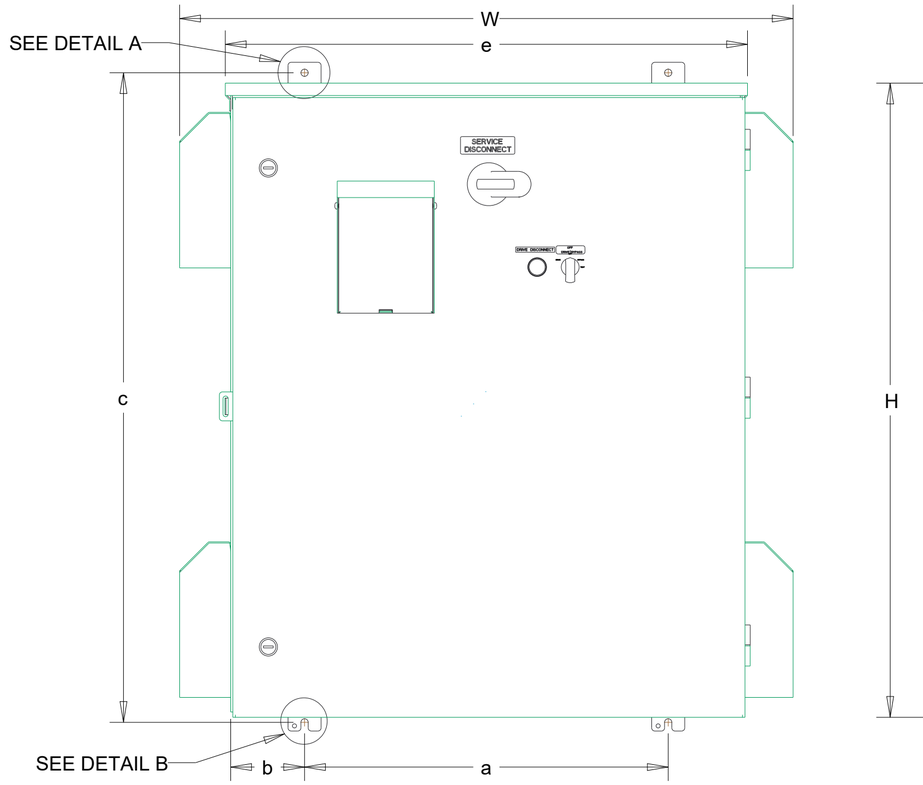
DETAIL B
SCALE 0.300

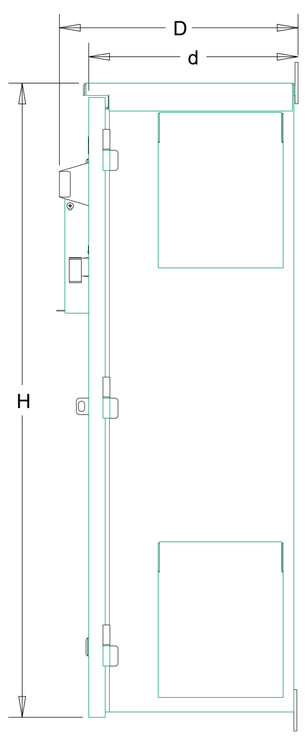
DETAIL A
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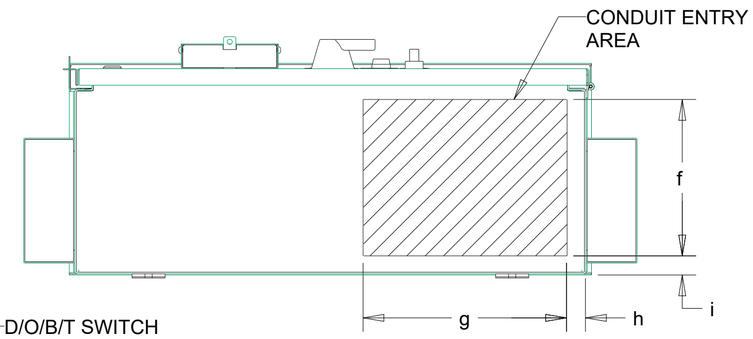


TYP EMB2 OPTION
DETAIL C
SCALE 0.300

FIGURE 2







VFD-RTU-2, 3
VFD-CAFE-4, 5, 6
VFD-EDINBURG
LIBRARY

NOTE: DIMENSIONS ARE NOT FOR MANUFACTURING PURPOSES

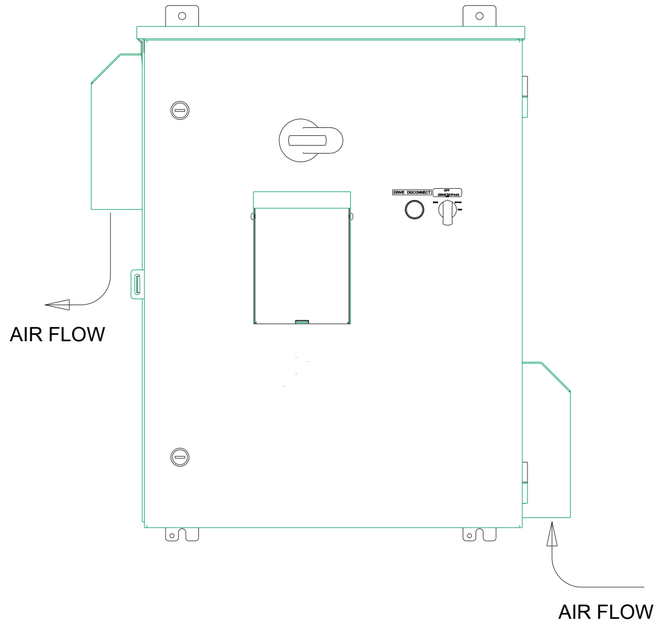
▽ CRITICAL CHARACTERISTICS
▽ KEY CHARATERISTICS
⬭ INSPECTION
MUST COMPLY TO ROHS DIRECTIVE 2011/65/EU

UNLESS OTHERWISE SPECIFIED INTERPRET DIM. & TOL. PER ASME Y14.5M-1994 ALL DIMENSIONS ARE IN INCHES [MM]	THIRD ANGLE PROJECTION	SCALE 0.150 / SIZE A2
PDM CONTROLLED DRAWING NOT VALID WITHOUT FROZEN DATE IN ID STAMP		MATERIAL / FINISH
CHANGED TM 06/18/19		DESCRIPTION: DRAWING, INSTALLATION, NEMA 3R
DESIGNED DK 02/19/18		
CHECKED		

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DRAWING NUMBER	REV
185B7937	003
MODEL: N3R_FRAME_0_5	SHEET: 1 OF 3

FIGURE 1



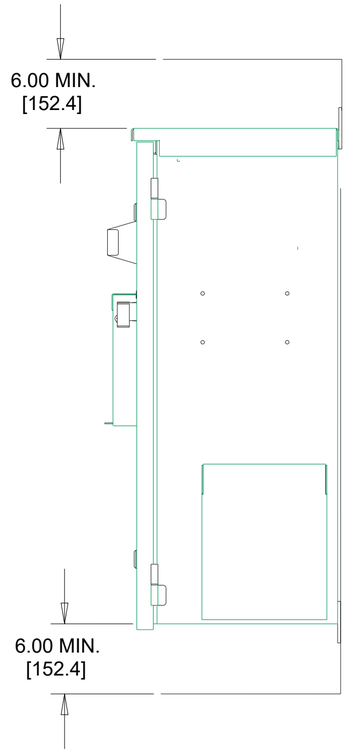
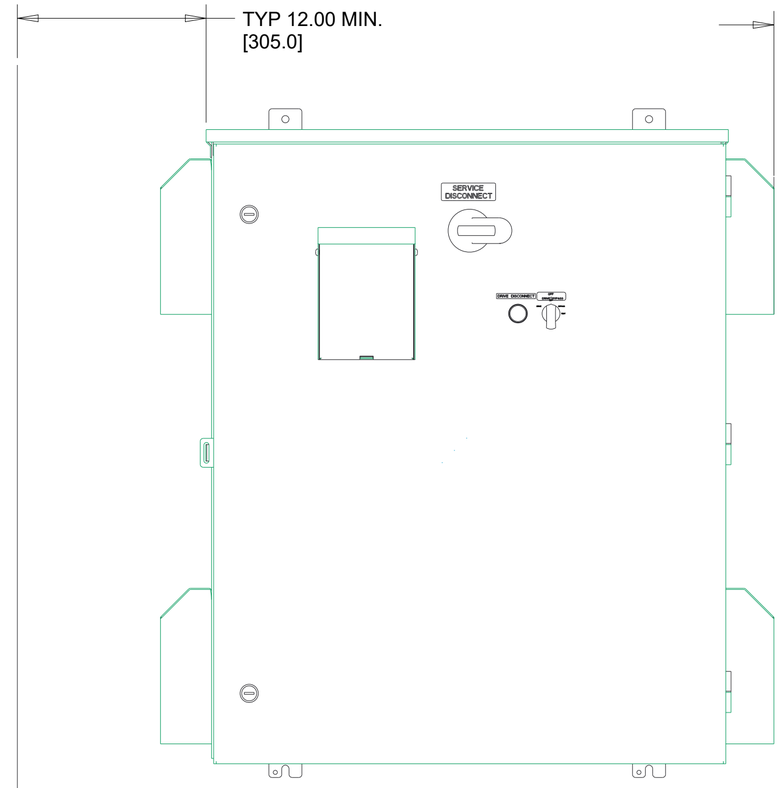
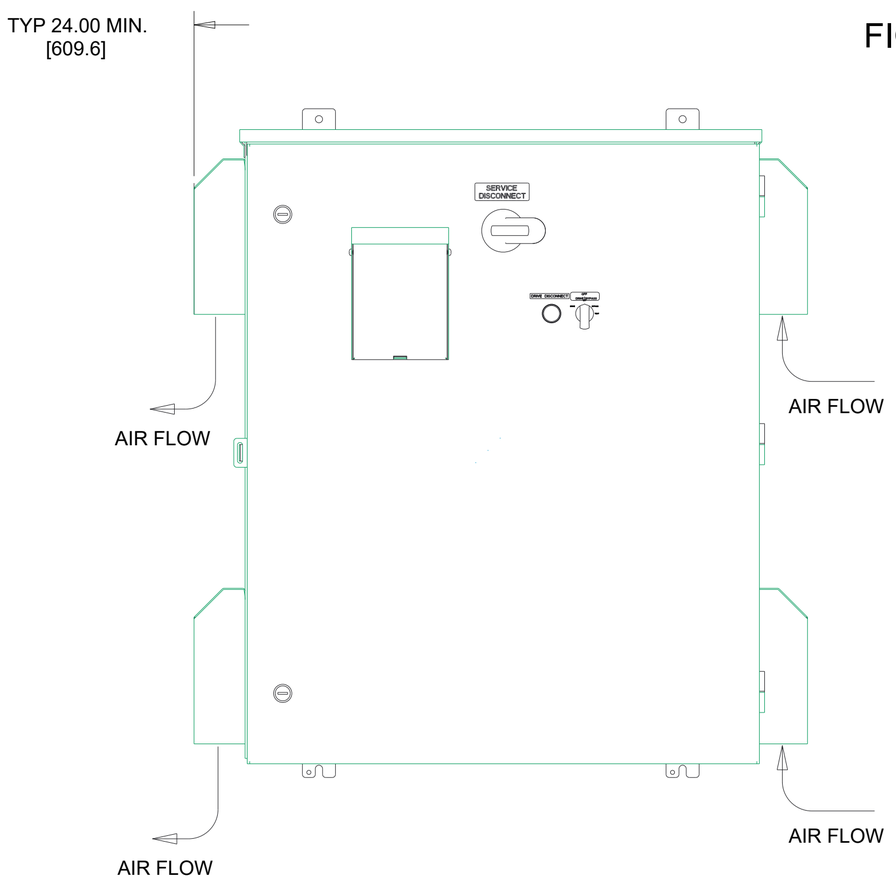
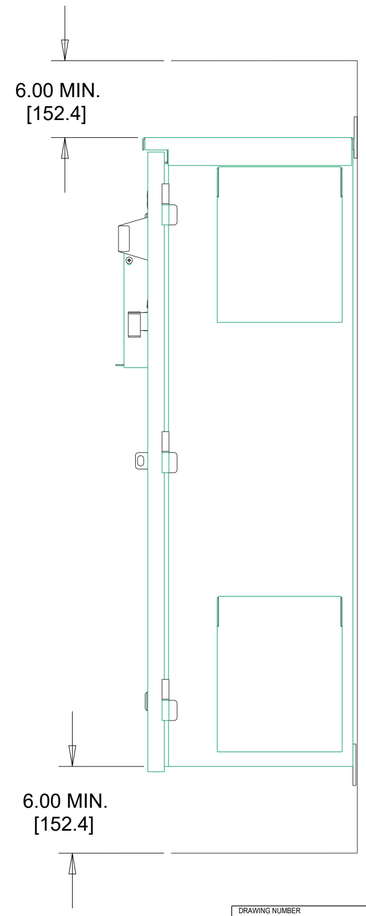


FIGURE 2



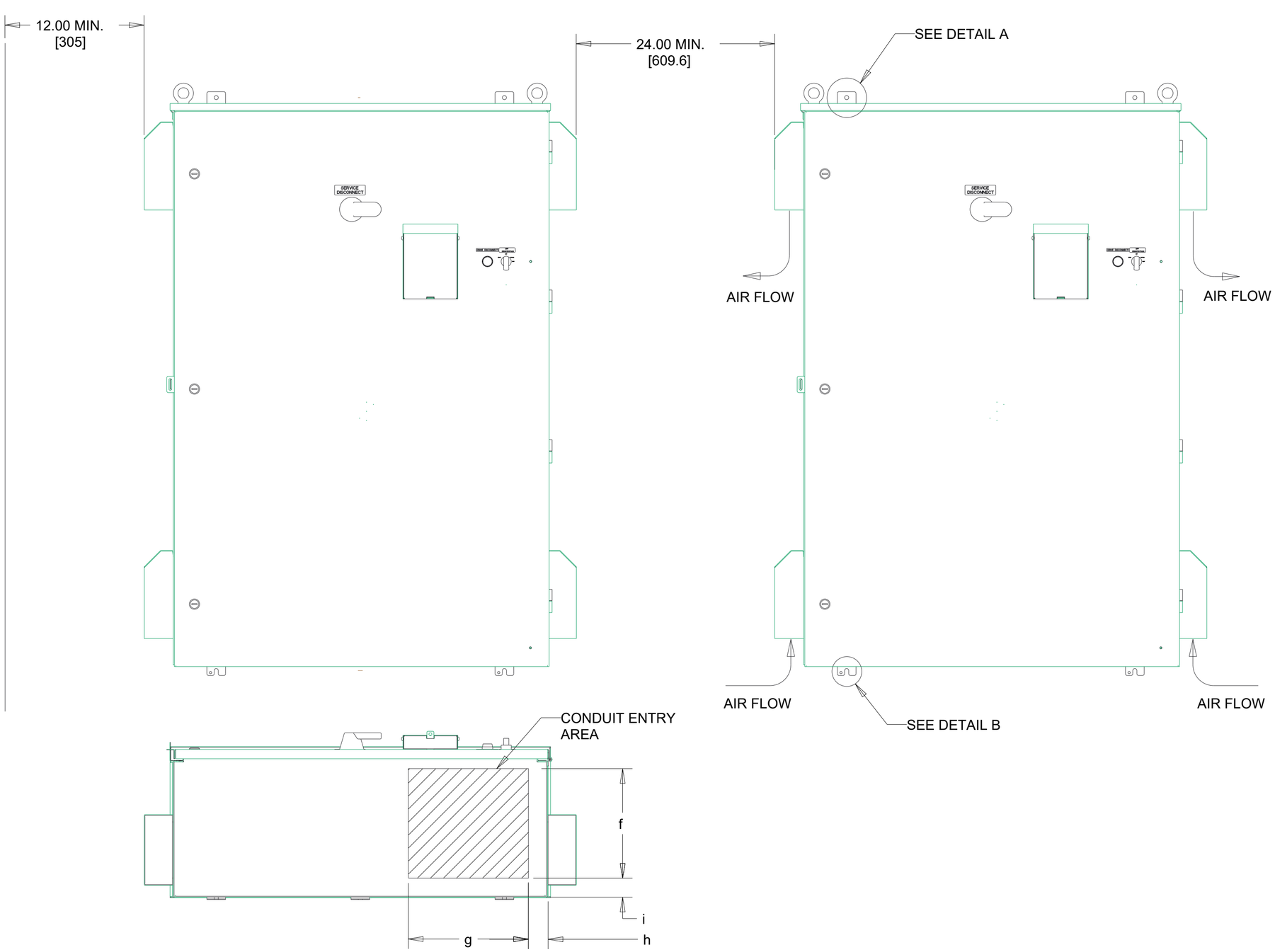




NOTE: DIMENSIONS ARE NOT FOR MANUFACTURING PURPOSES

DRAWING NUMBER 185B7937	REV 003
MODEL N3R_FRAME_0_5	SHEET 2 OF 3

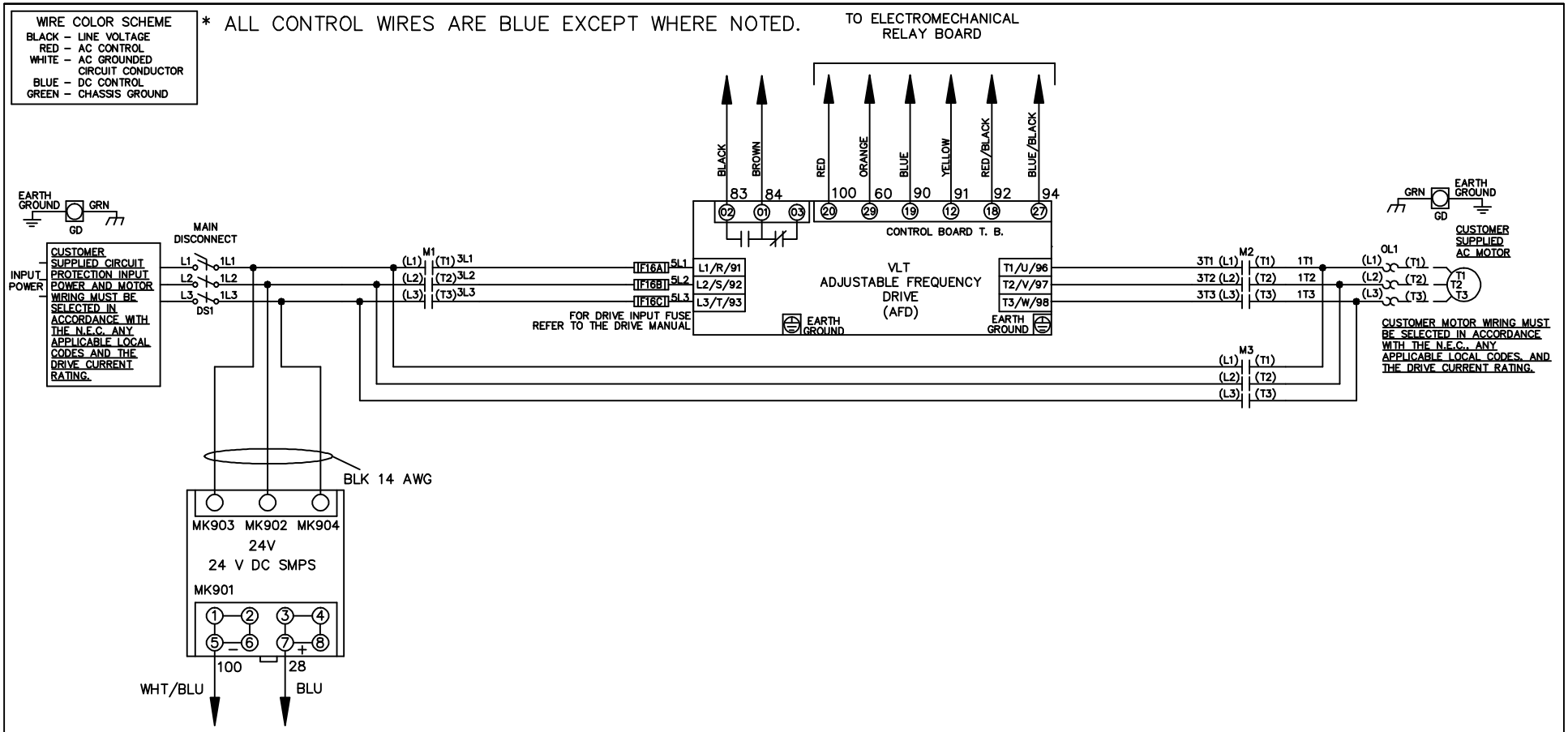
FIGURE 3



NOTE: DIMENSIONS ARE NOT FOR MANUFACTURING PURPOSES

DRAWING NUMBER 185B7937	REV 003
MODEL N3R_FRAME_2_FRAME_3	SHEET 3 OF 3

ELECTRICAL DRAWINGS



VFD-AHU-1, 2

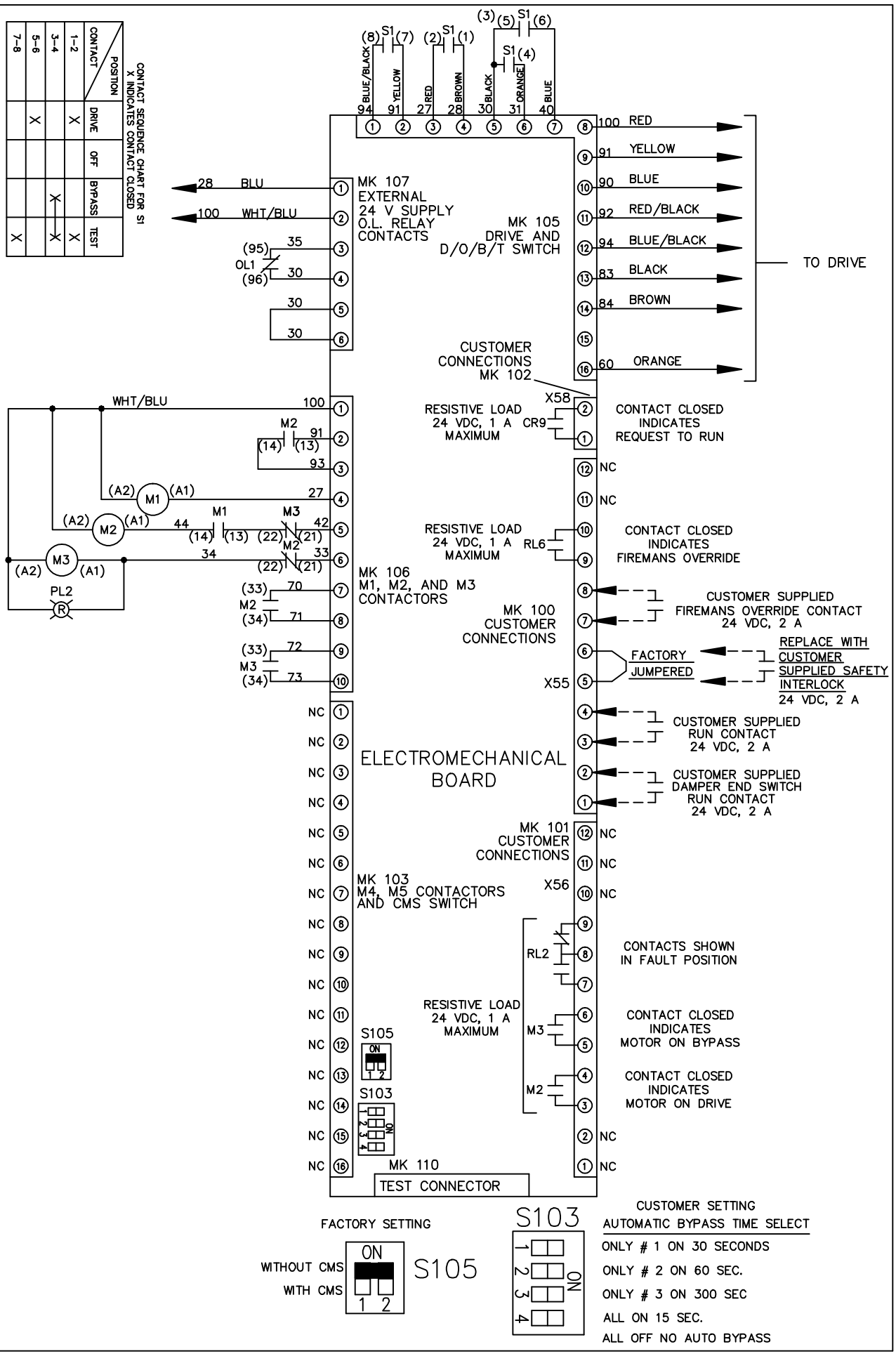
REV	ECN	DATE

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DRN JNW 2/14/07
APR

NAME 208–600VOLT,3C,MAIN DISC ,DRIVE FUSE,EMB2,FRAME A2–A3 ,NO REACTOR & DVDT,SINGLE MTR

MODEL VLT | PAGE 1 OF 2 | SIZE A | DWG NO. 174U3338



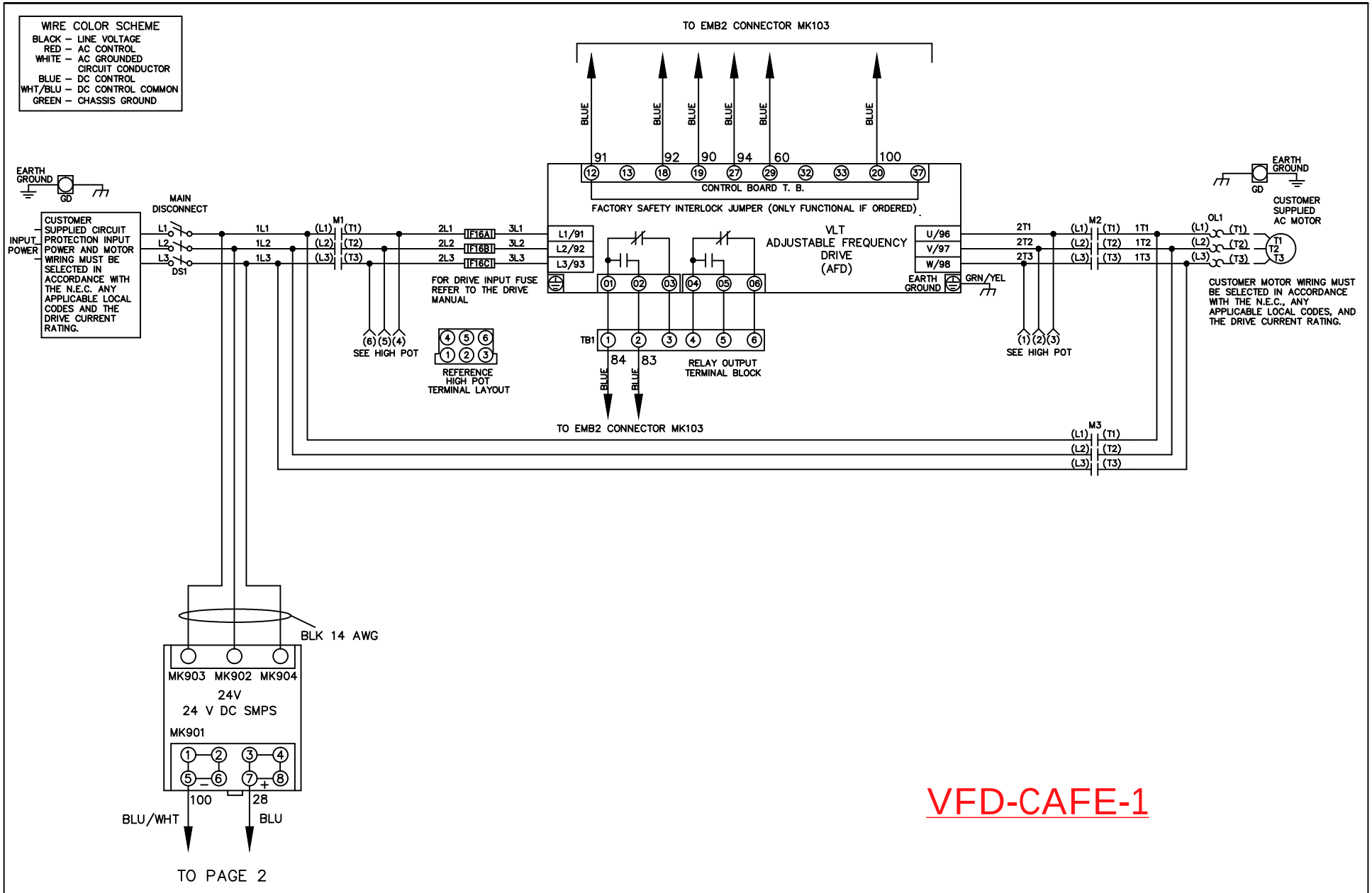
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REV	ECN	DATE	DRN	APR
			JNW 2/14/07	

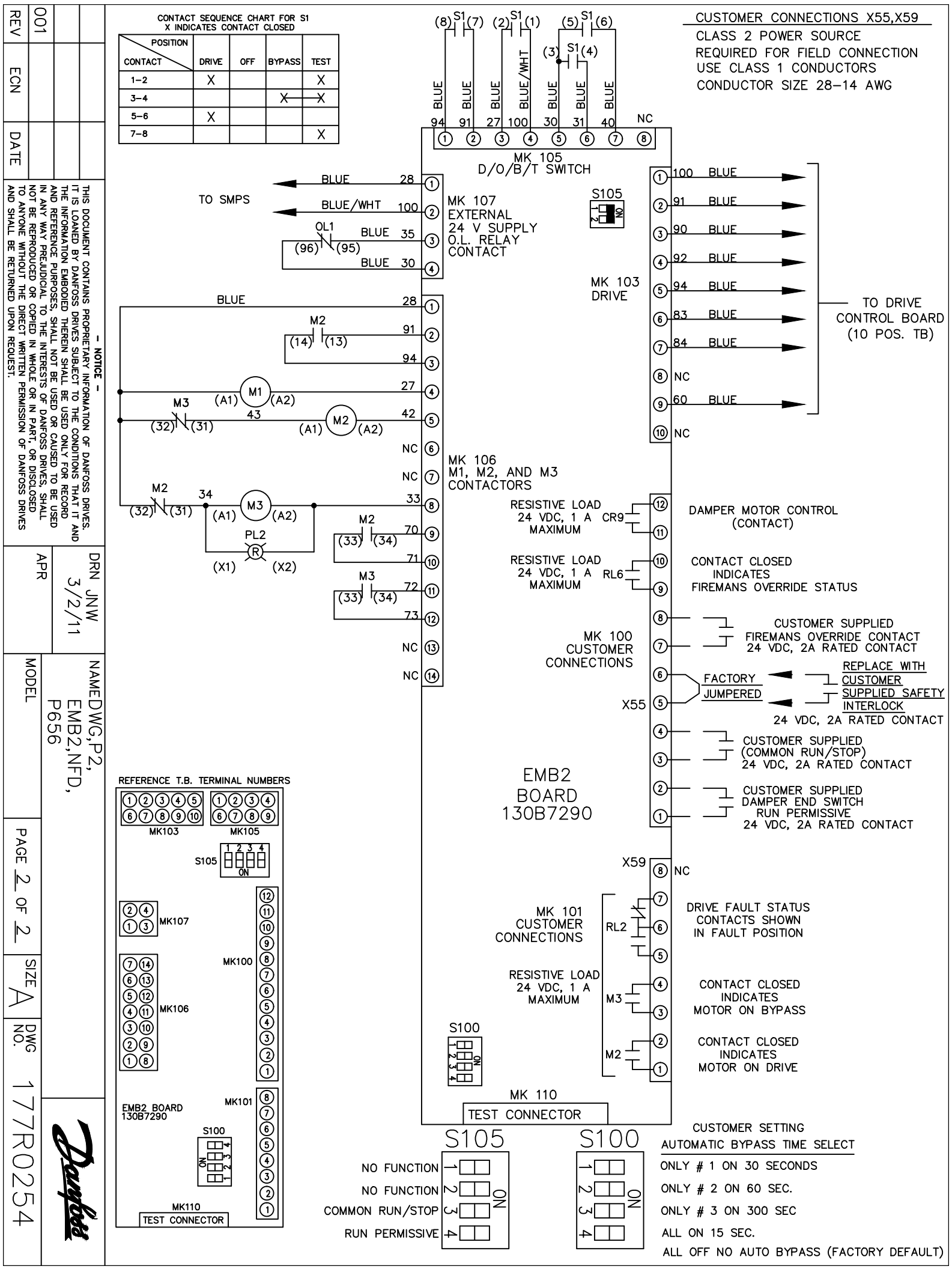
NAME 208-600VOLT,3C,MAIN DISC ,DRIVE FUSE,EMB2,FRAME A2-A3 ,NO REACTOR & DVDT,SINGLE MTR

MODEL VLT | PAGE 2 OF 2 | SIZE A | DWG NO. 174U3338

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			– NOTICE –	DRN JNW 3/2/11	NAME DWG,P2, EMB2,NFD, P656			
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001								
REV	ECN	DATE						



REV	ECN	DATE
001		

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APR	DRN JNW 3/2/11

MODEL

NAMEDWG,P2,
EMB2,NFD,
P656

PAGE 2 OF 2

SIZE A

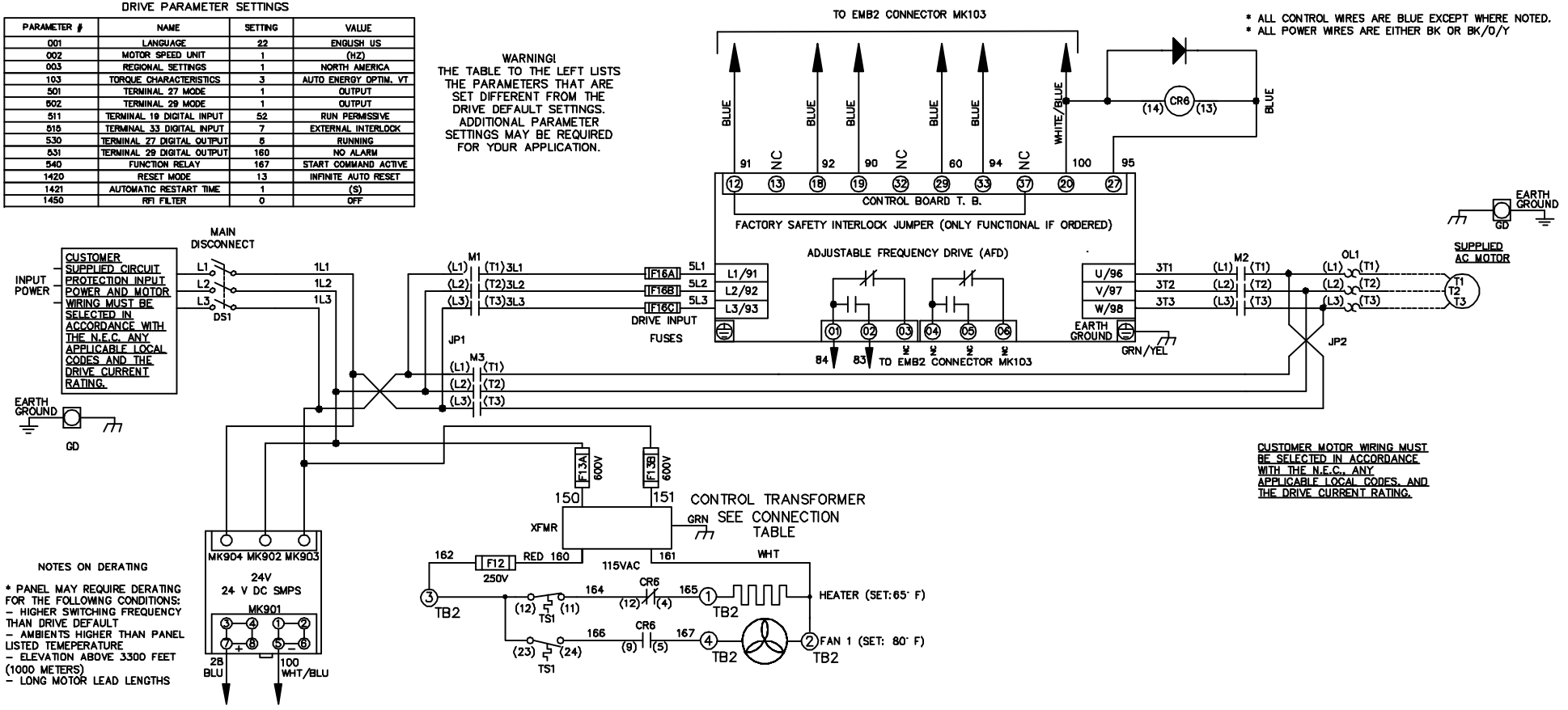
DWG NO. 177R0254

Danfoss

DRIVE PARAMETER SETTINGS

PARAMETER #	NAME	SETTING	VALUE
001	LANGUAGE	22	ENGLISH US
002	MOTOR SPEED UNIT	1	(HZ)
003	REGIONAL SETTINGS	1	NORTH AMERICA
103	TORQUE CHARACTERISTICS	3	AUTO ENERGY OPTIM. VT
501	TERMINAL 27 MODE	1	OUTPUT
502	TERMINAL 29 MODE	1	OUTPUT
511	TERMINAL 19 DIGITAL INPUT	52	RUN PERMISSIVE
515	TERMINAL 33 DIGITAL INPUT	7	EXTERNAL INTERLOCK
530	TERMINAL 27 DIGITAL OUTPUT	5	RUNNING
531	TERMINAL 29 DIGITAL OUTPUT	160	NO ALARM
540	FUNCTION RELAY	167	START COMMAND ACTIVE
1420	RESET MODE	13	INFINITE AUTO RESET
1421	AUTOMATIC RESTART TIME	1	(S)
1450	RFI FILTER	0	OFF

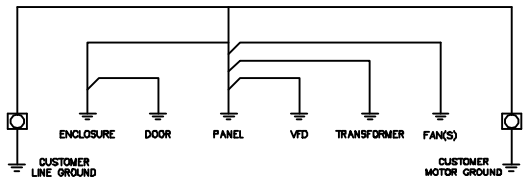
WARNING!
THE TABLE TO THE LEFT LISTS THE PARAMETERS THAT ARE SET DIFFERENT FROM THE DRIVE DEFAULT SETTINGS. ADDITIONAL PARAMETER SETTINGS MAY BE REQUIRED FOR YOUR APPLICATION.



*TRANSFORMER CONNECTION TABLE

VOLTAGE CLASS	PRIMARY SIDE			SECONDARY SIDE		
	WIRE 150	WIRE 151	JUMPER	WIRE 160	WIRE 161	JUMPER
T1	H1	H2	N/A	X1	X3	N/A
T2	H1	H4	H1–H3 H2–H4	X1	X2	N/A
T4	H1	H4	H2–H3	X1	X2	N/A
T6	H1	H2	N/A	X1	X4	X1–X3 X2–X4

PANEL GROUNDING LAYOUT



VFD-RTU-2, 3
VFD-CAFE-4, 5, 6
VFD-EDINBURG
LIBRARY

REV	ERM	DATE
02	079708	9/2022
01	077954	6/2022

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DRN GWT
APR TWB

NAME FR 0.5–2, N3R, 208–575V, 3C
MAIN DISC, DRIVE FUSE
EMB2, SINGLE MOTOR, 1 FAN

MODEL N3R EMB2

SIZE A

DWG NO. 007N5494

REV	ERM	DATE
02	079708	9/2022
01	077954	6/2022

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DRN	APR
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NAME	MODEL	PAGE	SIZE	DWG NO.
FR 0.5–2, N3R, 208–575V, 3C MAIN DISC, DRIVE FUSE EMB2, SINGLE MOTOR, 1 FAN	VLT	2 OF 2	A	007N5494

Danfoss

CONTACT SEQUENCE CHART FOR S1
X INDICATES CONTACT CLOSED

CONTACT \ POSITION	DRIVE	OFF	BYPASS	TEST
1–2	X			X
3–4			X	X
5–6	X			
7–8				X

CUSTOMER CONNECTIONS X55,X59
CLASS 2 POWER SOURCE
REQUIRED FOR FIELD CONNECTION
USE CLASS 1 CONDUCTORS
CONDUCTOR SIZE 28–14 AWG

(8) S1 (7) (2) S1 (1) (5) S1 (6) (3) S1 (4)

BLUE BLUE BLUE WHT/BLUE BLUE BLUE BLUE

94 91 27 100 30 31 40 NC

MK 105
D/O/B/T SWITCH

MK901-7 BLUE 28
TO SMPS
MK901-5 WHT/BLUE 100
OL1 BLUE 35
(96) (95)
BLUE 30

MK 107
EXTERNAL
24 V SUPPLY
O.L. RELAY
CONTACT

S105 ON 1 2

MK 103
DRIVE

100 WHITE/BLUE
91 BLUE
90 BLUE
92 BLUE
94 BLUE
83 BLUE
84 BLUE
NC
60 BLUE
NC

TO DRIVE
CONTROL BOARD
(10 POS. TB)

BLUE 28
M2 J1-1 P1-1 91
(44) (43)
94
J1-2 P1-2
27
M3 (7) M1 (8) 43
(22) (21) A1 A2
42
(7) M2 (8)
A1 A2
NC
NC
M2 34 33
(31) (32) (7) M3 (8)
A1 A2
PL2
(X1) (X2)
M2 70
(13) (14)
71
M3 72
(13) (14)
73
NC
NC

MK 106
M1, M2, AND M3
CONTACTORS

J1 FRONT P1 FRONT

RESISTIVE LOAD
24 VDC, 1 A CR9
MAXIMUM
DAMPER MOTOR CONTROL
(CONTACT)

RESISTIVE LOAD
24 VDC, 1 A RL6
MAXIMUM
CONTACT CLOSED
INDICATES
FIREMANS OVERRIDE STATUS

MK 100
CUSTOMER
CONNECTIONS

CUSTOMER SUPPLIED
FIREMANS OVERRIDE CONTACT
24 VDC, 2A RATED CONTACT

FACTORY JUMPERED
REPLACE WITH CUSTOMER SUPPLIED SAFETY INTERLOCK
24 VDC, 2A RATED CONTACT

X55

CUSTOMER SUPPLIED
(COMMON RUN/STOP)
24 VDC, 2A RATED CONTACT

CUSTOMER SUPPLIED
DAMPER END SWITCH
RUN PERMISSIVE
24 VDC, 2A RATED CONTACT

EMB2
BOARD
130B7290

X59
NC

MK 101
CUSTOMER
CONNECTIONS

RL2
DRIVE FAULT STATUS
CONTACTS SHOWN
IN FAULT POSITION

RESISTIVE LOAD
24 VDC, 1 A
MAXIMUM
M3
CONTACT CLOSED
INDICATES
MOTOR ON BYPASS

M2
CONTACT CLOSED
INDICATES
MOTOR ON DRIVE

S100 ON 1 2 3 4

MK 110
TEST CONNECTOR

REFERENCE T.B. TERMINAL NUMBERS

MK103 MK105 MK107 MK100 MK106 MK101 MK110
TEST CONNECTOR

S105 ON 1 2 3 4
NO FUNCTION
NO FUNCTION
COMMON RUN/STOP
RUN PERMISSIVE

S100 ON 1 2 3 4

CUSTOMER SETTING
AUTOMATIC BYPASS TIME SELECT
ONLY # 1 ON 30 SECONDS
ONLY # 2 ON 60 SEC.
ONLY # 3 ON 300 SEC
ALL ON 15 SEC.
ALL OFF NO AUTO BYPASS (FACTORY DEFAULT)

SECTION 230010 – SUMMARY OF MECHANICAL WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 23 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. The following Summary of Work is intended as an aid to achieve an understanding of the various elements of work included in the project, and is not intended to be all-inclusive. Detailed descriptions of work and requirements are given in drawings and specifications.

B. Mechanical Contract Documents were prepared for the Project by:
Ethos Engineering,
1126 South Commerce Street
Harlingen, Texas 78550
Phone Number: (956) 230-3435

C. Scope of Work is broken down as follows:
1. Base Bid: Replacement of HVAC systems and controls.
   a. Demolish existing systems, equipment and materials. The Owner has the right of first refusal. Dispose of removed items that the owner no longer wishes to keep. Retain and reuse HVAC equipment as designated.
      1) Remove refrigerant and deliver to Owner.
      2) Remove HVAC equipment, ductwork, piping, supports, and accessories, controls systems, and miscellaneous equipment and materials that are no longer required.
      3) Remove piping connections, refrigerant piping and specialties, piping supports, insulation, etc. as indicated in plans to make room for new equipment.
      4) Save existing smoke detectors, wiring and safeties for reuse. Document devices that are not in working order.
   b. Install Owner pre-purchased HVAC systems including DX RTUs, DX split systems, hydronic AHUs, VFDs, duct and piping modifications.
   c. Provide systems modifications including ductwork and piping modifications, and related controls upgrades. See drawings for details.
      1) For reused refrigerant piping, provide cleaning and vacuuming of existing refrigerant piping to be reused. Provide new refrigerant piping specialties, pipe insulation, jacketing, pipe supports, and miscellaneous accessories.
      2) Wash and clean existing AHU coils, clean drain pan, verify operation of dampers and actuators.
   d. Testing, Adjusting, & Balancing (TAB) shall not be provided under the mechanical contract. General contractor to provide TAB. Coordinate work.
   e. Provide Building Automation System Controls work per Sections 230900 and 230993.

f. Shop drawing submittals for all mechanical systems such as equipment, ductwork and piping, and coordination drawings for placing of mechanical systems in relation to work by other disciplines.
g. Provide windstorm restraints for exterior mounted equipment, along with sealed drawings and calculations showing that restraints meet IBC requirements.
h. Coordinate electrical work with Div. 26 as required.
i. Coordinate fire alarm related work with Fire Alarm Contractor. Provide smoke detectors, wiring and controls for units, 2000 cfm and larger, where none exist.
j. Painting: See Division 9 specifications. Paint all exposed piping, ductwork, insulation, hangers, accessories in interior exposed areas. Paint exterior pipe supports. Coordinate paint type, color and scope of work with Architect.
k. Commissioning: Provide assistance with commissioning services per specifications. This includes completing systems readiness checklists, performing functional testing, providing operator training, etc.

2. Alternate #1: Replacement of air distribution systems, zone dampers, bypass dampers, ductwork, air devices, and related controls. Retain and reuse existing AHUs as indicated.

1.3 ALLOWANCES

A. Allowances are included in the Division 1 specifications.

1.4 WORK UNDER SEPARATE CONTRACTS

A. Equipment has been pre-purchased by the Owner. Submittals have been provided for Contractor's information. Coordinate with suppliers for exact Bill of Materials.

1.5 COORDINATION

A. Contractor shall coordinate with pre-purchased equipment supplier to ensure smooth, trouble-free installation in compliance with manufacturer's recommended procedures and these specifications.

B. Installation of equipment is sole responsibility of Contractor. Supplier will offer assistance according to standard practice and as required by these specifications.

C. Prior to bidding, Mechanical Contractor shall coordinate all work in Division-23 for integration with supplier, TAB, plumbing, electrical, controls work and general construction. A detailed list of inclusion and exclusions shall be provided to General Contractors at least three days prior to the end of the period set aside to request clarifications so that coordination of any missing items may be addressed and clarified by Architect/Engineer as needed.

D. All electrical work required for operation of mechanical systems shall be coordinated through the General Contractor prior to bidding to ensure that all starters, disconnects, VFD's, conduit and wiring are provided as part of the project. All components needed for a full operational installation of systems shall be provided.

E. All controls required for operation of mechanical systems shall be coordinated prior to bidding, to ensure that all equipment, materials, sensors, devices and labor are provided as part of the

project. All components needed for a full operational installation of systems shall be provided. Mechanical Contractor shall coordinate and supervise installation of all controls systems.

F. All questions, requests for information, submittals, and correspondence from the Div. 23 Contractor shall be submitted via the General Contractor, who will forward to the Architect, who will then forward to the Engineer.

G. Div. 23 Contractor shall not make any changes to design without written authorization from the Engineer. If changes are requested by the Owner, Architect, General Contractor, Suppliers, Manufacturers, or any others, Contractor should issue a written RFI for response by the Engineer.

H. Div. 23 Contractor shall issue seven days written notice prior to any activities that require the presence of the Engineer at the job-site. This applies to all inspections required by specifications, and particularly to those where work will be covered.

I. Cooperate fully with other contractors so that work under those contracts may be carried out smoothly, without interfering with or delaying work under this Contract. Ensure that systems are ready for controls and electrical connections when needed so as to not delay construction.

J. Contractor shall coordinate with other divisions for power and control of mechanical systems. It is not the intent of this specification to dictate who will conduct work, only to state the requirements of conducting the work.

K. Coordinate with Div. 1 for work sequence and optimization of construction schedule.

L. Coordinate with Div. 21 for Fire Suppression System.

M. Coordinate with Div. 26 electrical contractor for providing power to mechanical equipment, and for Fire Alarm Systems interface with mechanical systems.

N. Coordinate TAB activities with TAB Contractor.

O. Coordinate commissioning activities with Commissioning Agent.

P. Issue written notification of the following tasks and allow five (5) days for Engineer to respond and schedule an inspection as required. Failure to issue written notification may result in work having to be redone to allow for proper inspection. It is contractor's responsibility to make sure Engineer receives notification.
   1. Upon completion of ductwork and prior to testing and insulating.
   2. Metal duct leakage testing.
   3. Above ceiling inspections prior to ceiling tile installation.
   4. When ready to request manufacturer's start-up of each piece of equipment.
   5. When ready for Systems Readiness Checklists (Commissioning).
   6. When ready for Functional Performance testing (Commissioning).
   7. When ready for an inspection by TAB contractor prior to developing detailed TAB Plan.
   8. When ready to conduct complete Automation System software demonstration.
   9. When ready for Substantial Completion Inspection.
   10. When ready for Final Inspection.

Q. General

1. The Contractor shall execute all work hereinafter specified or indicated on accompanying Drawings. Contractor shall provide all equipment necessary and usually furnished in connection with such work and systems whether or not mentioned specifically herein or on the Drawings.
2. The Contractor shall be responsible for fitting his material and apparatus into the building and shall carefully lay out his work at the site to conform to the structural conditions, to avoid all obstructions, to conform to the details of the installation and thereby to provide an integrated satisfactory operating installation.
3. The Mechanical, Electrical, Plumbing, and associated Drawings are necessarily diagrammatic by their nature, and are not intended to show every connection in detail or every pipe or conduit in its exact location. These details are subject to the requirements of standards referenced elsewhere in these specifications, and structural and architectural conditions. The Contractor shall carefully investigate structural and finish conditions and shall coordinate the separate trades in order to avoid interference between the various phases of work. Work shall be organized and laid out so that it will be concealed in furred chases and suspended ceilings, etc., in finished portions of the building, unless specifically noted to be exposed. All exposed work shall be installed parallel or perpendicular to the lines of the building unless otherwise noted.
4. When the mechanical, electrical and plumbing drawings do not give exact details as to the elevation of pipe, conduit and ducts, the Contractor shall physically arrange the systems to fit in the space available at the elevations intended with proper grades for the functioning of the system involved. Piping, exposed conduit and the duct systems are generally intended to be installed true and square to the building construction, and located as high as possible against the structure in a neat and workmanlike manner. The Drawings do not show all required offsets, control lines, pilot lines and other location details. Work shall be concealed in all finished areas.

1.6 WORK SEQUENCE

A. Locate Utilities:

1. Coordinate with power, water, sewer, telephone, communications, and other utilities as well as designated Owner's personnel to locate all utilities prior to digging in any area.
2. Obtain any approvals required from utilities to relocate utilities.
3. Cost of relocating or bypassing utilities indicated on drawings shall be included in Base Bid.
4. Where several new utilities must share a common area or path, coordinate with other trades so that the proper clearances are maintained and utilities may be installed in compliance with all requirements.
5. Refer to Civil Plans for coordination of connection points from site utilities to buildings.

B. Coordinate with Division 1 requirements to optimize construction schedule.

C. Provide equipment and material submittals, coordination drawings and shop drawings as required by specifications.

D. Submit detailed mechanical Schedule of Values with Submittals. Mechanical Submittals will not be accepted without a detailed Schedule of Values.

E. Sequence construction in coordination with work by other disciplines.

1.7 CONTRACTOR USE OF PREMISES

A. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.
   1. Driveways and Entrances: Keep driveways and entrances to construction site clear and available to other Contractors, Owner, and A/E personnel at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

B. Site Safety: Take every precaution to ensure the site does not present a threat to the safety of occupants and/or workers. Minimal safety requirements include, but are not limited to the following:
   1. Temporary fencing around construction areas.
   2. Yellow caution tape and construction barricades along open trenches during the day. Trenches shall be covered at night and warning lights provided on construction barricades.
   3. Temporary fencing around equipment while site work is in progress.

1.8 SUBMITTALS

A. Manufacturer's standard dimensioned drawings, performance and product data shall be edited to delete reference to equipment, features, or information which is not applicable to the equipment being supplied for this project.

B. Provide all mechanical submittals at the same time in one or multiple bound volumes. Include originals from manufacturer. All submittals shall be in native pdf and searchable format. Faxes and copies of faxes are not acceptable.

C. Provide sufficient copies of approved data, with the engineer's approved stamp, for inclusion in the operations and maintenance manuals.

D. Provide detailed coordination drawings showing how mechanical system components will be installed in coordination with work by others. Engineer’s drawing files will be made available to Contractor for producing coordination and as-built drawings upon request.

1.9 SCHEDULE OF VALUES -Special Requirements

A. Mechanical Contractor shall submit a Schedule of Values reflecting the total value of Mechanical Work in the Contract, and broken down into the following items as a minimum, with a line-item for Materials/Equipment and another for Labor:

MECHANICAL
1. HVAC equipment
2. HVAC materials (ductwork, piping, dampers)
3. HVAC labor
4. Controls equipment
5. Controls labor
6. Controls engineering and programming

7. Controls commissioning and closeout (minimum 10% of total controls cost)
8. Controls training (minimum 5% of total controls cost)
9. TAB
10. Commissioning related activities
11. Allowances.
12. Miscellaneous
13. Administrative and project management.

B. Schedule of Values shall be included with bound submittals. Submittals without a Schedule of Values shall not be reviewed.

1.10 EQUIPMENT MANUFACTURERS

A. Mechanical design is based on equipment and materials scheduled and specified. These are used as the basis for performance characteristics, quality, and physical dimensions/weight.

B. Equipment and materials by other APPROVED manufacturers may be provided by Contractor. In doing so, Contractor assumes responsibility for the performance, quality, and physical dimensions of the proposed units.

C. Any costs associated with modifications to the design due to submittal of equipment and/or materials other than those used as the basis of design are the Contractor's responsibility. This includes any design time, production of drawings, and time delays.

D. Where use of equipment and/or materials other than those used as the basis of design impact other disciplines, Contractor shall assume responsibility for all costs associated with any APPROVED modifications. This may include resizing of electrical circuits, modifying openings in the structure, relocating floor drains, etc.

1.11 OPERATIONS AND MAINTENANCE MANUALS & TRAINING

A. Submit Operations and Maintenance Manuals two weeks prior to Substantial Completion Inspection. Engineer will not conduct a Substantial Completion Inspection without having reviewed Operations and Maintenance Manuals.

B. Use Operations and Maintenance Manuals as a guide for conducting training of Owner's personnel.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 230010

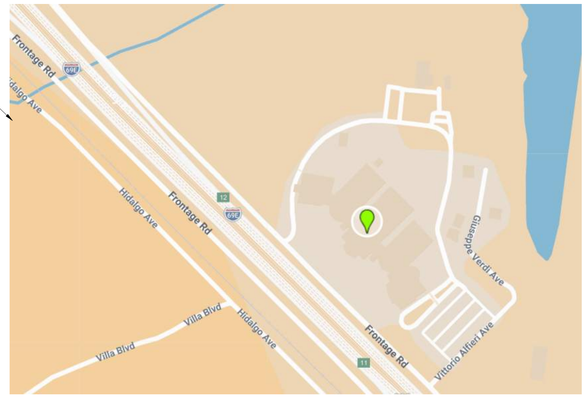
JOCPROJ - HVAC PROJECT 26-27

HEALTH PROFESSIONS CAMPUS, MEDICAL PROFESSIONS CAMPUS, WORLD SCHOLARS CAMPUS

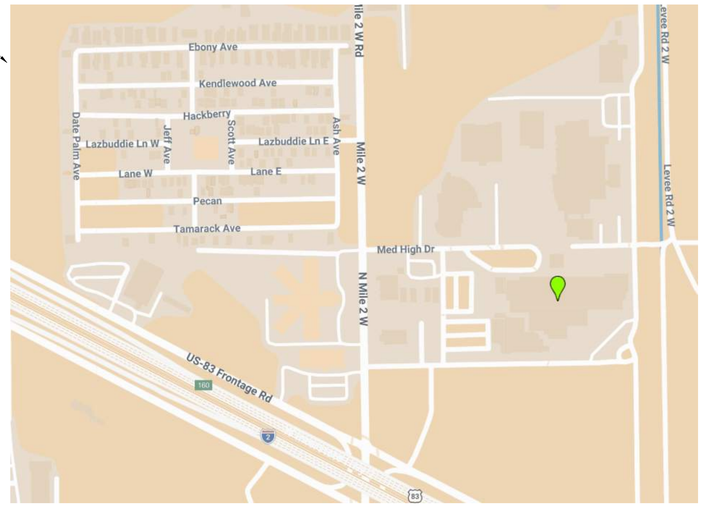
MERCEDES TEXAS, OLMITO TEXAS, EDINBURG TEXAS

VICINITY MAP

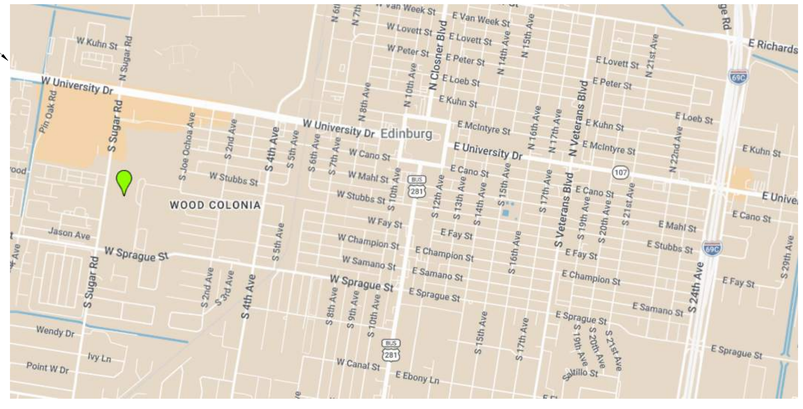
MEDICAL PROFESSIONS
10650 NORTH EXPRESSWAY 77/83
OLMITO, TX 78575



HEALTH PROFESSIONS
700 MED HIGH DR.
MERCEDES, TX 78570



WORLD SCHOLARS
501 S. SUGAR RD.
EDINBURG, TX 78539



SCOPE OF WORK:

A. THE FOLLOWING SUMMARY OF WORK IS INTENDED AS AN AID TO ACHIEVE AN UNDERSTANDING OF THE VARIOUS ELEMENTS OF WORK INCLUDED IN THE PROJECT, AND IS NOT INTENDED TO BE ALL-INCLUSIVE. DETAILED DESCRIPTIONS OF WORK AND REQUIREMENTS ARE GIVEN IN DRAWINGS AND SPECIFICATIONS.

B. MECHANICAL CONTRACT DOCUMENTS WERE PREPARED FOR THE PROJECT BY:

ETHOS ENGINEERING,
1126 SOUTH COMMERCE STREET
HARLINGEN, TEXAS 78550
PHONE NUMBER: (956) 230-3435

C. SCOPE OF WORK IS BROKEN DOWN AS FOLLOWS:

1. BASE BID: REPLACEMENT OF HVAC SYSTEMS AND CONTROLS.
   - A. DEMOLISH EXISTING SYSTEMS, EQUIPMENT AND MATERIALS. THE OWNER HAS THE RIGHT OF FIRST REFUSAL. DISPOSE OF REMOVED ITEMS THAT THE OWNER NO LONGER WISHES TO KEEP. RETAIN AND REUSE HVAC EQUIPMENT AS DESIGNATED.
     1) REMOVE REFRIGERANT AND DELIVER TO OWNER.
     2) REMOVE HVAC EQUIPMENT, DUCTWORK, PIPING, SUPPORTS, AND ACCESSORIES, CONTROLS SYSTEMS, AND MISCELLANEOUS MATERIALS THAT ARE NO LONGER REQUIRED.
     3) REMOVE REFRIGERANT PIPING AND SPECIALTIES, PIPING SUPPORTS, INSULATION, ETC. AS INDICATED IN PLANS TO MAKE ROOM FOR NEW EQUIPMENT.
     4) SAVE EXISTING SMOKE DETECTORS, WIRING AND SAFETIES FOR REUSE. DOCUMENT DEVICES THAT ARE NOT IN WORKING ORDER.
   - B. INSTALL OWNER PRE-PURCHASED HVAC SYSTEMS INCLUDING DX RTUS, DX SPLIT SYSTEMS, HYDRONIC AHUS, VFDS, DUCT AND PIPING MODIFICATIONS.
   - C. PROVIDE SYSTEMS MODIFICATIONS INCLUDING DUCTWORK AND PIPING MODIFICATIONS, AND RELATED CONTROLS UPGRADES. SEE DRAWINGS FOR DETAILS.
     1) FOR REUSED REFRIGERANT PIPING, PROVIDE CLEANING AND VACUUMING OF EXISTING REFRIGERANT PIPING. PROVIDE NEW REFRIGERANT PIPING SPECIALTIES, PIPE INSULATION, JACKETING, PIPE SUPPORTS, AND MISCELLANEOUS ACCESSORIES.
     2) WASH AND CLEAN EXISTING AHU COILS, CLEAN DRAIN PAN, VERIFY OPERATION OF DAMPERS AND ACTUATORS.
   - D. TESTING, ADJUSTING, & BALANCING (TAB) SHALL NOT BE PROVIDED UNDER THE MECHANICAL CONTRACT. GENERAL CONTRACTOR TO PROVIDE TAB. COORDINATE WORK.
   - E. PROVIDE BUILDING AUTOMATION SYSTEM WORK PER SECTIONS 230900 AND 230993.
   - F. SHOP DRAWING SUBMITTALS FOR ALL MECHANICAL SYSTEMS SUCH AS EQUIPMENT, DUCTWORK AND PIPING, AND COORDINATION DRAWINGS FOR PLACEMENT OF MECHANICAL SYSTEMS IN RELATION TO WORK BY OTHER DISCIPLINES.
   - G. PROVIDE WINDSTORM RESTRAINTS FOR EXTERIOR MOUNTED EQUIPMENT, ALONG WITH SEALED DRAWINGS AND CALCULATIONS SHOWING THAT RESTRAINTS MEET IBC REQUIREMENTS.
   - H. COORDINATE ELECTRICAL WORK WITH DIV. 26 AS REQUIRED.
   - I. COORDINATE FIRE ALARM RELATED WORK WITH FIRE ALARM CONTRACTOR. PROVIDE SMOKE DETECTORS, WIRING AND CONTROLS FOR UNITS, 2000 CFM AND LARGER, WHERE NONE EXIST.
   - J. PAINTING: SEE DIVISION 9 SPECIFICATIONS. PAINT ALL EXPOSED PIPING, DUCTWORK, INSULATION, HANGERS, ACCESSORIES IN INTERIOR EXPOSED AREAS. PAINT EXTERIOR PIPE SUPPORTS. COORDINATE PAINT TYPE, COLOR AND SCOPE OF WORK WITH ARCHITECT.
   - K. COMMISSIONING: PROVIDE ASSISTANCE WITH COMMISSIONING SERVICES PER SPECIFICATIONS. THIS INCLUDES COMPLETING SYSTEMS READINESS CHECKLISTS, PERFORMING FUNCTIONAL TESTING, PROVIDING OPERATOR TRAINING, ETC.
2. ALTERNATE #1: REPLACEMENT OF AIR DISTRIBUTION SYSTEMS, ZONE DAMPERS, BYPASS DAMPERS, DUCTWORK, AIR DEVICES, AND RELATED CONTROLS. RETAIN AND REUSE EXISTING AHUS AS INDICATED.

1 ADD

DATE OF ISSUE

JULY 31, 2026

LIST OF DRAWINGS

COVER	COVER SHEET
ME2.00	MECHANICAL-ELECTRICAL GENERAL NOTES, LEGEND, & ABBREVIATIONS
ME3.01	STISD HEALTH PROFESSIONS - DEMO MECHANICAL & ELECTRICAL FLOOR PLAN
ME3.02	STISD HEALTH PROFESSIONS - MECHANICAL & ELECTRICAL FLOOR PLAN
ME4.01	STISD MEDICAL PROFESSIONS - DEMO MECHANICAL & ELECTRICAL FLOOR PLAN
ME4.02	STISD MEDICAL PROFESSIONS - MECHANICAL & ELECTRICAL FLOOR PLAN
ME5.01	STISD EDINBURG - ALBERT H. DEMO MECHANICAL & ELECTRICAL FLOOR PLAN
ME5.02	STISD EDINBURG - ALBERT H. MECHANICAL & ELECTRICAL FLOOR PLAN
ME6.01	STISD EDINBURG - DEMO LIBRARY MECHANICAL & ELECTRICAL FLOOR PLAN
ME6.02	STISD EDINBURG - LIBRARY MECHANICAL & ELECTRICAL FLOOR PLAN
ME7.01	STISD EDINBURG - DEMO KITCHEN MECHANICAL FLOOR PLAN
ME7.02	STISD EDINBURG - KITCHEN MECHANICAL FLOOR PLAN
ME8.01	STISD EDINBURG - DEMOLITION 1 ST FLOOR MECHANICAL PLAN WORLD SCHOLAR - ALTERNATE
ME8.02	STISD EDINBURG - 1 ST FLOOR MECHANICAL PLAN WORLD SCHOLAR - ALTERNATE
ME9.01	MECHANICAL DETAILS
P2.01	STISD EDINBURG - LIBRARY PLUMBING DEMOLITION FLOOR PLAN
P3.01	STISD EDINBURG - LIBRARY PLUMBING RENOVATION FLOOR PLAN
P4.01	PLUMBING SCHEDULES AND DETAILS
S1.1	GENERAL STRUCTURAL NOTES
S1.2	GENERAL STRUCTURAL DETAILS
S2.1	STISD WORLD SCHOLARS LIBRARY FOUNDATION DEMOLITION PLAN
S2.2	STISD WORLD SCHOLARS LIBRARY FOUNDATION RENOVATION PLAN
S3.1	STISD WORLD SCHOLARS ALBERT H. STRUCTURAL DEMOLITION FRAMING PLAN
S3.2	STISD WORLD SCHOLARS ALBERT H. STRUCTURAL RENOVATION FRAMING PLAN
S3.3	STISD WORLD SCHOLARS KITCHEN STRUCTURAL DEMOLITION FRAMING PLAN
S3.4	STISD WORLD SCHOLARS KITCHEN STRUCTURAL RENOVATION FRAMING PLAN
S3.5	STISD MEDICAL PROFESSIONS STRUCTURAL DEMOLITION FRAMING PLAN
S3.6	STISD MEDICAL PROFESSIONS STRUCTURAL RENOVATION FRAMING PLAN

BOARD OF TRUSTEES

DR. SANDRA GARZA OCHOA — SUPERINTENDENT
HENRY LEVRIER — PRESIDENT
DR. SYLVIA SÁNCHEZ GARZA — VICE PRESIDENT
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RUTH VILLARREAL — MEMBER
SUE ANN VILLARREAL — MEMBER
ZACHARY ZAMORA — MEMBER
VACANT POSITION — MEMBER

No.	REVISIONS	BY
1 ADD	10-30-2026	ETHOS

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville, TX
78526
(956) 546-0110
fax (956) 546-0196

STISD HVAC Project 26-27
MERCEDES, OLMITO, & EDINBURG, TEXAS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED PROFESSIONAL ENGINEER
07.31.2026

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: 07/31/2026
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: Author
Job No.: 25V131
Sheet: COVER

ethos engineering
1126 S. COMMERCE ST.
HARLINGEN, TX
PHONE: 956-230-3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15988

10/29/2026 5:19:10 PM

ABBREVIATIONS

A	AMPS	EMS	ENERGY MANAGEMENT SYSTEM	NC	NORMALLY CLOSED
ABC	ABOVE CEILING LINE	ENT.	ENTERING	NIC	NOT IN CONTRACT
ACT	ACTUATOR	EXT.	EXTERNAL OR EXTERIOR	NO	NORMALLY OPEN
AFF	ABOVE FINISHED FLOOR	EXIST./EX	EXISTING	NTS	NOT TO SCALE
AHU	AIR HANDLING UNIT	FD	FIRE DAMPER	OA	OUTSIDE AIR
B.	BOTTOM	FM	FLOW METER	PH	PHASE
BAS	BUILDING AUTOMATION SYSTEM	FS	FLOW SWITCH	P	POLE(S)
BOP	BOTTOM OF PIPE	FPI	FINS PER INCH	RA	RETURN AIR
BOTT.	BOTTOM	G.	GROUND	RAG/RG	RETURN AIR GRILLE
C.	CONDUIT OR COMMON	GA.	GAGE	RD	ROOF DRAIN
CHR	CHILLED WATER RETURN	GALV.	GALVANIZED	RM.	ROOM
CHS	CHILLED WATER SUPPLY	GPM	GALLONS PER MINUTE	RPZ	REDUCED PRESSURE ZONE
CHW	CHILLED WATER	GRND.	GROUND	SA	SUPPLY AIR
CHWP	CHILLED WATER PUMP	HB	HOSE BIBB	SD	SUPPLY AIR DIFFUSER
CR	CONDENSER WATER RETURN	HP	HORSEPOWER	SS	STAINLESS STEEL
CS	CONDENSER WATER SUPPLY	HS	HUMIDITY SENSOR	SZ	SINGLE ZONE
CLG.	CEILING OR COOLING	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	TAB	TESTING & BALANCING
COMB.	COMBINATION			TS	TEMPERATURE SENSOR
CONC.	CONCRETE	LVG.	LEAVING	TSTAT	THERMOSTAT
COND.	CONDUIT	MCA	MINIMUM CIRCUIT AMPACITY	TYP.	TYPICAL
CU.	COPPER	MECH	MECHANICAL	UG	UNDERGROUND
CW	CITY WATER	MOT. STRTR.	MOTOR STARTER	UNO	UNLESS OTHERWISE NOTED
DDC	DIRECT DIGITAL CONTROLS	MOCP	MAX. OVERCURRENT PROTECTION	V	VOLTS
DMPR.	DAMPER	MS	MOTOR STARTER	VAV	VARIABLE AIR VOLUME
DISC.	DISCONNECT	MZ	MULTI-ZONE	VFD	VARIABLE FREQUENCY DRIVE
EA/EG	EXHAUST AIR GRILLE	N/A	NOT APPLICABLE	W	WIRE

ELECTRICAL GENERAL SYMBOL LEGEND:

SYMBOL	DESCRIPTION	MNTG. HT. UNO (SEE NOTE 1)
	DISCONNECT SWITCH - NON FUSED	AS REQUIRED
	DISCONNECT SWITCH - FUSED	AS REQUIRED
	COMBINATION MOTOR STARTER/DISCONNECT SWITCH	AS REQUIRED
	MOTOR STARTER	AS REQUIRED
	EQUIPMENT CONNECTION	AS REQUIRED
	ELECTRICAL PANELBOARD - SURFACE MOUNTED	AS REQUIRED
— — —	UNDERGROUND RACEWAY	AS REQUIRED
————	CONCEALED RACEWAY	AS REQUIRED

INSULATION:

1. FIBERGLASS INSULATION MAY NOT BE USED ON ANY COLD SURFACES; ONLY APPROVED CLOSED CELL INSULATION IS ACCEPTABLE.
2. PROVIDE INSULATION ON ALL SURFACES CAPABLE OF CREATING CONDENSATION.

ELECTRICAL:

1. ALL ELECTRICAL WORK SHALL BE UNDER THE MASTER ELECTRICIAN WHO PULLED THE PERMIT AND ITS JOURNEYMAN ELECTRICIANS.
2. PERFORM ALL WORK PER ADOPTED N.E.C. AND APPLICABLE STATE STANDARDS. UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
3. UNLESS NOTED OTHERWISE, MINIMUM POWER CIRCUIT IS TO BE #12 THHN/THWN-2 WITH #12 GROUND IN 3/4" CONDUIT, WITH THE EXCEPTION THAT ANY CIRCUIT LONGER THAN 100 FEET SHALL BE MINIMUM #10 AWG WITH #10 GROUND WIRE. CIRCUIT LONGER THAN 200 FEET SHALL BE MINIMUM #8 AWG WITH #10 GROUND WIRE MINIMUM.
4. ALL EXISTING ID NAMETAGS AND CIRCUIT IDENTIFICATION MUST BE REVISED TO REFLECT CURRENT CONDITIONS FOR ALL EQUIPMENT WHICH IS NEW, REPLACED, OR DEMOLISHED. REMOVE ID NAMETAGS FOR DEMOLISHED EQUIPMENT. REPLACE EXISTING NAMETAGS WITH NEW FOR REPLACED EQUIPMENT, IF REPLACEMENT EQUIPMENT HAS DIFFERENT NAME. PROVIDE NEW NAMETAGS FOR ALL NEW EQUIPMENT. ALL CIRCUIT BREAKER DIRECTORIES FOR PANELS IN WHICH NEW WORK TAKES PLACE ARE TO BE REPLACED WITH NEW DIRECTORIES WHICH LIST EXISTING CIRCUITS AND NEW. ALL UNUSED CIRCUITS ARE TO BE MARKED AS 'SPARE' IN THE DIRECTORIES. DIRECTORIES ARE TO BE COMPUTER GENERATED; NO HAND WRITTEN DIRECTORIES ARE ACCEPTABLE.
5. HAND-WRITTEN CIRCUIT BREAKER DIRECTORIES WILL NOT BE ACCEPTED. DIRECTORIES MUST BE COMPUTER GENERATED AND PRINTED TO REFLECT FINAL INSTALLED CONDITIONS.
6. MARK ALL J-BOXES WITH INDELIBLE INK, INDICATING POWER CIRCUITRY INFORMATION. LABEL ALL EQUIPMENT ITEMS PER SPECIFICATIONS.
7. ALL EXTERIOR RACEWAYS ABOVE GROUND SHALL BE RIGID GALVANIZED.
8. UNDER NO CIRCUMSTANCES SHALL MORE THAN THREE CIRCUITS SHARE THE SAME NEUTRAL, AND SUCH CIRCUITS MUST BE SEPARATE PHASE.
9. SINCE ELECTRICAL CHARACTERISTIC OF EQUIPMENT (SUCH AS HORSEPOWER, KW, AMPERAGE, VOLTAGE, ETC.) SUBMITTED MAY DIFFER FROM THOSE SPECIFIED IN DRAWINGS, CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND OTHER CONTRACTORS TO ENSURE COMPATIBILITY BETWEEN ELECTRICAL AND MECHANICAL EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
10. USE LONG-SWEEPS FOR ALL CHANGES IN DIRECTION ON CONDUIT RUNS.
11. ALL INTERIOR RACEWAYS SHALL BE EMT.
12. FIELD VERIFY PROJECT SITE EXISTING CONDITIONS AND ELEVATIONS PRIOR TO BEGINNING ANY WORK.
13. PHASING AND SEQUENCE OF CONSTRUCTION SHALL BE PER DRAWINGS AND SPECIFICATIONS.
14. ALL MATERIALS AND LABOR, WHETHER SPECIFICALLY INDICATED ON PLANS OR NOT, WHICH ARE NECESSARY FOR THE PROPER INSTALLATION AND FUNCTION OF THE SYSTEM SHALL BE FURNISHED BY THIS CONTRACTOR. INCLUDE ALL COSTS OF CHANGES, IF/AS REQUIRED IN BID PROPOSAL.
15. ELECTRICAL WIRING SHALL NOT BE SPLICED BELOW GRADE.
16. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
17. CONTRACTOR WHO WILL ACTUALLY PERFORM WORK MUST APPLY FOR ALL REQUIRED PERMITS.
18. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
19. COORDINATE ALL WORK WITH OTHER TRADES; COORDINATE SCHEDULE OF WORK WITH ALL SUB-CONTRACTORS TO ACHIEVE SMOOTH FLOW OF CONSTRUCTION.
20. SEAL AROUND ELECTRICAL RACEWAYS AT ALL WALLS AND WALL LOUVER PENETRATIONS WITH FIREPROOF CAULKING. RE: SPECS. PROVIDE FLASHING AROUND PENETRATION, BOTH INSIDE AND OUTSIDE, TO PROVIDE FINISHED LOOK.
21. CONTRACTOR SHALL REVIEW COMPLETE DOCUMENTS PRIOR TO SUBMITTAL OF PROPOSAL TO GAIN COMPLETE UNDERSTANDING OF PROJECT SCOPE, WORK BY OTHERS, AND ELECTRICAL WORK ASSOCIATED WITH OTHER DISCIPLINES.
22. MAINTAIN MANUFACTURER RECOMMENDED CLEARANCE AROUND ALL EQUIPMENT.
23. AFFIX ID TAGS TO ALL DIVISION 26 EQUIPMENT.
24. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH MECHANICAL AND PLUMBING CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
25. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
26. ALL EQUIPMENT SHALL BE FACTORY TESTED, AND CONTRACTOR SHALL VERIFY THEIR CONDITION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR EQUIPMENT DAMAGED DURING MOVING AND INSTALLATION.
27. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
28. SLEEVE ALL EXTERIOR WALL PENETRATIONS.
29. IN THE EVENT A CONFLICT BETWEEN DRAWINGS AND/OR SPECIFICATIONS ARISES, THE GREATER AMOUNT OF TOTAL COST SHALL BE PRICED. CONFLICT SHALL BE PRESENTED TO ENGINEER FOR FURTHER DIRECTION(S).

EQUIPMENT:

1. FIELD VERIFY ALL CONDITIONS AND MEASURE DIMENSIONS WITHIN THE BUILDING PRIOR TO ORDERING EQUIPMENT AND/OR PROCEEDING WITH INSTALLATION.
2. PRIOR TO MOVING PRE-PURCHASED EQUIPMENT FROM OWNER'S DESIGNATED WAREHOUSE/STORAGE TO PROJECT SITE, CONTRACTOR SHALL VERIFY AND DOCUMENT EQUIPMENT CONDITION. CONTRACTOR SHALL IMMEDIATELY REPORT ANY DAMAGES FOUND. WITHOUT SUCH VERIFICATION AND DOCUMENTATION, EQUIPMENT FOUND DEFECTIVE AFTER INSTALLATION SHALL BE REPLACED AT NO COST TO OWNER.
3. EQUIPMENT FOUND DEFECTIVE PRIOR TO FINAL ACCEPTANCE SHALL BE REPLACED AT NO COST TO OWNER.
4. MAINTAIN CLEARANCE AROUND ALL EQUIPMENT AS REQUIRED BY NATIONAL ELECTRIC CODE AND MANUFACTURER RECOMMENDATIONS.
5. PROVIDE SPRING HANGER TYPE VIBRATION ISOLATION DEVICES TO SUPPORT SUSPENDED, POWERED, VIBRATING EQUIPMENT. PROVIDE FLEXIBLE CONNECTORS AS REQUIRED.
6. PROVIDE TRAPPED CONDENSATE DRAIN LINES FROM ALL HVAC EQUIPMENT AND TERMINATE AT NEAREST APPROVED RECEPTORS.
7. COMPLETELY WEATHERPROOF ALL EQUIPMENT, PIPES AND OTHER DEVICES AND MATERIALS INSTALLED OUTSIDE THE BUILDING, IN MECHANICAL YARD, OR OTHERWISE EXPOSED TO WEATHER. AS A MINIMUM, WEATHERPROOFING SHALL INCLUDE, BUT IS NOT LIMITED TO THE FOLLOWING: JACKETING FOR ALL PIPING INSULATION, VALVES AND ACCESSORIES RATED FOR OUTDOOR SERVICE. ELECTRICAL ENCLOSURES NEMA 4X-SS. UNLESS OTHERWISE NOTED.
8. AFFIX ID TAGS TO ALL MECHANICAL EQUIPMENT.
9. CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH ELECTRICAL CONTRACTOR REGARDING EQUIPMENT SIZES AND TYPES OF ELECTRICAL INTERFACE EQUIPMENT REQUIRED.
10. PROVIDE MECHANICAL, PLUMBING, AND ELECTRICAL WORK REQUIRED FOR A COMPLETE AND OPERATIONAL INSTALLATION.

DEMOLITION GENERAL NOTES:

1. DRAWINGS SHOWING ALL EQUIPMENT LOCATIONS, DUCT AND PIPE SIZES, ELEVATIONS, AND ELECTRICAL INFORMATION HAVE BEEN RECREATED USING DRAWINGS AND SITE SURVEYS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE CONDITIONS IN ORDER TO MAKE ANY NECESSARY ADJUSTMENTS. PRIOR RO ORDERING MATERIAL OR COMMENCING INSTALLATION. CHANGE ORDERS WILL NOT BE APPROVED FOR DIMENSIONAL VERIFICATIONS REQUIRING MINOR ADJUSTMENTS NEEDED TO COMPLETE INSTALLATION.
2. OWNER MAY WISH TO KEEP DEMOLISHED EQUIPMENT AND MATERIAL. COORDINATE WITH, AND DISPOSE OF EQUIPMENT AND MATERIAL THAT OWNER DOES NOT RETAIN.

EXISTING CONDITIONS & COORDINATION/RENOVATION:

1. COORDINATE SCHOOL SCHEDULES, POWER DOWN TIMES, AND PROJECT COMPLETION DATES WITH OWNER. PERFORM WORK IN CLOSE COORDINATION WITH OWNER. MAJORITY OF WORK SHALL BE PERFORMED WHEN SCHOOL IS UNOCCUPIED, SUCH AS WEEKENDS, AFTER HOURS, HOLIDAY BREAKS OR OTHER OWNER APPROVED TIMES.
2. COORDINATE WORK AMONG ALL DISCIPLINES. IT IS NOT THE INTENT OF THESE DOCUMENTS TO DICTATE WHO MUST DO THE WORK. ALL WORK SHOWN IS THE RESPONSIBILITY OF THE (PRIME) CONTRACTOR.
3. PRIOR TO DEMOLITION WORK, SUBMIT A DETAILED DEMOLITION AND CONSTRUCTION SCHEDULE TO OWNER AND ENGINEER. DO NOT PROCEED WITH WORK UNTIL PROPOSED SCHEDULE IS APPROVED BY ALL PARTIES. PROVIDE OWNER WITH MINIMUM 10 DAYS ADVANCE NOTICE OF INTENT TO PERFORM ANY WORK WHICH WILL REQUIRE CHILLER, PLANT OR ELECTRICAL SERVICE TO BE SHUT DOWN.
4. NOTIFY ENGINEER AND OWNER IF TEMPORARY OR PERMANENT RELOCATION OF UTILITIES IS REQUIRED.
5. COORDINATE DEMOLITION WORK WITH NEW AND TEMPORARY CONSTRUCTION WITH MINIMAL INTERRUPTION OF POWER AND OTHER UTILITIES. COORDINATE WITH OWNER AND ENGINEER FOR ANY DISRUPTION IN UTILITY SERVICES, PARTICULARLY THOSE THAT MIGHT AFFECT OCCUPANCY.
6. CONTRACTOR SHALL NOT PROCEED WITH ANY WORK INVOLVING A CHANGE IN PROJECT SCOPE OR COST WITHOUT FIRST HAVING OBTAINED ENGINEER'S APPROVAL IN WRITING. UNLESS ENGINEER HAS AGREED TO SUCH CHANGE PRIOR TO IT BEING DONE, AND HAS AGREED THAT AN INCREASE IN COST ASSOCIATED WITH SUCH CHANGE IS WARRANTED; CONTRACTOR WILL NOT BE REIMBURSED FOR SUCH CHANGE.
7. PROVIDE LIGHTED SAFETY BARRIERS AROUND WORK AREAS AT ALL TIMES.
8. SLEEVE ALL EXTERIOR WALL AND GRADE BEAM PENETRATIONS. GRADE BEAM PENETRATIONS SHALL BE MADE WITHIN MIDDLE 1/3 OF VERTICAL SPAN OF BEAM.
9. SEAL AROUND DUCTS AND PIPES AT WALL PENETRATIONS WITH FIRE PROOF MATERIALS, PROVIDE ESCUTCHEON PLATS AND FLASHING AROUND PENETRATIONS, BOTH INSIDE AND OUTSIDE, TO PROVIDE A FINISHED LOOK.
10. PROVIDE SHOP DRAWINGS TO COORDINATE EXISTING AND NEW WORK.
11. REMOVE ALL EQUIPMENT, MATERIALS, CONTROL DEVICES, BOXES, POWER AND CONTROL WIRING, SAFETY SWITCHES, TUBING, ELECTRICAL CONDUIT, PIPING, SENSORS, ELECTRICAL DISCONNECTS, SUPPORTING DEVICES AND STRUCTURES, AND ALL RELATED AUXILIARY ITEMS ASSOCIATED WITH EQUIPMENT AND MATERIALS WHICH WILL NO LONGER BE USED AFTER THE PROJECT IS COMPLETE. PREPARE HOB SITE FOR NEW CONSTRUCTION.
12. IT IS CONTRACTOR'S RESPONSIBILITY TO REMOVE AND DISPOSE OF ALL ITEMS INDICATED TO BE REMOVED. HOWEVER, OWNER SHALL HAVE FIRST RIGHT OF REFUSAL OF ALL MATERIAL REMOVED. CONTRACTOR SHALL DISPOSE OF ALL MATERIALS WHICH THE OWNER DOES NOT WANT.
13. CONTRACTOR IS RESPONSIBLE FOR RESTORING ANY DISTURBED SURFACE TO ITS ORIGINAL CONDITION. ANY ROAD, TRAFFIC, OR OTHER PAINTED OR ERECTED SIGNS DAMAGED AS A RESULT OF WORK PERFORMED IN THOSE AREAS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
14. CUTTING AND PATCHING OF WALLS DAMAGED IN THE REMOVAL OF ITEMS SHALL BE DONE, WHETHER OR NOT DRAWINGS SPECIFICALLY CALL FOR SUCH REPAIRS.
15. MAINTAIN PROJECT SITE FREE OF WASTE MATERIALS AND DEBRIS, AND CLEAN SITE AT END OF EACH WORK DAY TO GREATEST EXTENT POSSIBLE.

CODES, ORDINANCES AND PERMITS:

1. CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS AND FEES ASSOCIATED WITH PROJECT, INCLUDING FEES FOR INSPECTIONS, APPLICATIONS, AND PROVISION OF NEW SERVICES.
2. PERFORM ALL WORK PER APPLICABLE VERSION OF MECHANICAL AND NATIONAL ELECTRICAL CODE, LOCAL CODES AND ORDINANCES, UNLESS DRAWINGS OR SPECIFICATIONS HAVE MORE STRINGENT REQUIREMENTS.
3. NOTIFY ENGINEER OF ANY ASPECTS OF DESIGN WHICH ARE THOUGHT TO BE IN NONCOMPLIANCE WITH APPLICABLE CODES.
4. OBTAIN APPROVAL FROM CITY FIRE DEPARTMENT AND BUILDING AND SAFETY DEPARTMENT PRIOR TO INSTALLATION OF ANY FIRE RELATED ITEMS.
5. COORDINATE PRESSURE TESTS, INSPECTIONS AND APPROVAL FOR ALL SYSTEMS WITH PERMITTING OFFICER, OWNER AND ENGINEER;

GENERAL REQUIREMENTS:

1. SUBMISSION OF PROPOSAL IS CONSIDERED AN ACKNOWLEDGEMENT THAT CONTRACTOR VISITED SITE, VERIFIED ALL EXISTING CONDITIONS, AND INCLUDED ANY MODIFICATIONS TO EXISTING AND NEW WORK REQUIRED FOR INSTALLATION OF A COMPLETE AND OPERATIONAL SYSTEM.
2. TIME OR MONEY ALLOWANCES WILL NOT BE MADE TO ACCOMMODATE CONDITIONS THAT COULD HAVE BEEN VERIFIED PRIOR TO SUBMITTING PROPOSAL, AND AT SHOP DRAWING STAGE.
3. DRAWINGS SHOWING ALL EQUIPMENT LOCATIONS, DUCT AND PIPE SIZES, ELEVATIONS, AND ELECTRICAL INFORMATION HAVE BEEN RECREATED USING DRAWINGS AND SITE SURVEYS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE CONDITIONS IN ORDER TO MAKE ANY NECESSARY ADJUSTMENTS, PRIOR TO ORDERING MATERIALS OR COMMENCING INSTALLATION. CHANGE ORDERS WILL NOT BE APPROVED FOR DIMENSIONAL VERIFICATIONS REQUIRING MINOR ADJUSTMENTS NEEDED TO COMPLETE INSTALLATION.
4. REFER TO SPECIFICATIONS FOR PROJECT COMPLETION DATES. PERFORM WORK IN CLOSE COORDINATION WITH OWNER. MAJORITY OF WORK SHALL BE PERFORMED AT OWNER APPROVED TIME.
5. WORK TO BE DONE UNDER ALLOWANCES BECOMES AN INTEGRAL PART OF THE WORK AND THE RESPONSIBILITY OF THE CONTRACTOR ONCE THE ALLOWANCE IS APPROVED.

CONTROLS:

1. ALC IS RESPONSIBLE FOR ALL PROJECT CONTROL ACTIVITIES FOR THIS PROJECT. (1 ADD)
2. CONTRACTOR SHALL COOPERATE AND COORDINATE WORK ACTIVITIES WITH DDC CONTROLS CONTRACTOR TO ENSURE SMOOTH TROUBLE-FREE INSTALLATION. CURRENT CONTROLS BY ACL.
3. WHERE NOT SPECIFICALLY INDICATED ON PLANS, DDC CONTRACTOR IS RESPONSIBLE FOR ALL CONTROL RELAYS AND CONTACTORS, POWER TO DDC PANELS, AND OTHER CONTROL ELEMENTS. ALTHOUGH DDC CONTRACTOR MAY COORDINATE WITH OTHER TRADES TO PROVIDE MISCELLANEOUS ELECTRICAL WORK, THE FINAL RESPONSIBILITY FOR ACHIEVEMENT OF CONTROL SEQUENCES LIES WITH DDC CONTRACTOR.
4. INTEGRATE NEW CONTROLS WITH OWNER'S EXISTING ON-SITE CONTROL SYSTEM. ACL MAINTAINS EXISTING SITE CONTROLS.
5. ALL REFERENCES TO CONTROLLED / MONITORED POINTS AND/OR GRAPHICS WHICH ARE ON A CURRENT CONTROL SYSTEM, AND WHICH WILL BE REMOVED DURING COURSE OF CONSTRUCTION OF THIS PROJECT, MUST BE COMPLETELY REMOVED FROM CONTROL SYSTEM SOFTWARE. CONTROL SYSTEM WIRING AND CONTROLLERS TO SUCH POINTS MUST BE REMOVED AS WELL.
6. AUTOMATED LOGIC SHALL SERVE AS THE DDC CONTRACTOR. DDC CONTRACTOR SHALL REMOVE EXISTING DEVICES, STORE THEM, AND RETURN ALL NON-REUSED DEVICES TO THE OWNER.

SPARE MATERIALS

1. PROVIDE ADDITIONAL MATERIALS DESCRIBED BELOW THAT MATCH PRODUCTS INSTALLED & THAT ARE PACKAGED WITH A PROTECTIVE COVERING FOR STORAGE & IDENTIFIED WITH LABELS DESCRIBING THE CONTENTS. INCLUDE THE INSTALLATION COST IN BASE BID PROPOSAL.
   - A. 50 LINEAR FEET - 3/4" - 3#10 & #10G
   - B. 50 LINEAR FEET - 3/4" - 3#8 & #10G
   - C. 50 LINEAR FEET - 1.25" - 3#2 & #8G
   - D. 50 LINEAR FEET - 1/2" - 3#12 & #12G
   - E. 50 LINEAR FEET - 1" - 3#4 & #10G

No.	REVISIONS	BY
1 ADD	10-30-2026	ETHOS

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STISD HVAC Project 26-27
MERCEDES, OLMITO, & EDINBURG, TEXAS



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Date: 07/31/2026
Scale: As Noted
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(PRE-PURCHASED) ACCU SCHEDULE - STISD MERCEDES - PRINCIPAL OFFICES

MARK	SERVING	TOTAL MBTUH	COND DB	ELECTRICAL V-PH-HZ	EER / IEER AT ARI	STEPS OF CAPACITY	FANS HP	(CIRCUIT) MCA	(CIRCUIT) MOCP	WEIGHT (LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-1	AHU-14	97 (1 ADD)	98	460/3/60	11/14.1	2	2	17	25	425	ALL	LENNOX	EL090KPSST-460

NOTES:

1. ACCU'S HAVE BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS. PROVIDE ITEMS BELOW AS PART OF THE INSTALLATION SCOPE OF WORK.
2. INSTALL OWNER PROVIDED LOUVER HAIL GUARD.
3. PROVIDE LOW AMBIENT KIT, SIGHT GLASS, SERVICE VALVES, FILTER DRYER, SOLENOID VALVES, TXVS, ANTI-SHORT CYCLE TIMER.
4. PROVIDE FREEZESTAT/DEFROST CONTROLLER TO PROTECT COMPRESSOR(S) WHEN ICE BUILD-UP IS DETECTED IN THE EVAPORATOR COIL.
5. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
6. PROVIDE REFRIGERANT PIPING, AS PER SPECIFICATIONS AND AS PER EQUIPMENT SUBMITTAL SIZING GUIDELINES. PROVIDE INSULATION AND ALUMINUM METAL JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.
7. BOLT DOWN CONDENSING UNIT ON PAD.

(PRE-PURCHASED) HEAT PUMP AIR HANDLER UNIT SCHEDULE - STISD MERCEDES - PRINCIPAL OFFICES

MARK	UNIT TYPE	TOTAL CFM	OUTSIDE AIR CFM	ESP IN WG	FAN TYPE	EX. MIN MOTOR HP	MAX MOTOR bHP	ELECTRICAL V-PH-HZ	COOLING TOTAL MBTUH	COOLING SENS. MBTUH	COOLING EAT DB/WB (F)	COOLING LAT DB/WB (F)	HEATER SECTION HEAT KW	HEAT CFM	ELECT. V-PH-HZ	STAGES	MCA	MOCP	WEIGHT (LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
AHU-14	VERTICAL DX SPLIT	3,600	360	0.8	BELT	2	4	460/3/60	97 (1 ADD)	87	78/65	54.8/54.8	10	3600	460/3/60	2	20	25	431	ALL	LENNOX	EL090KASD-STD-460

NOTES:

1. AIR HANDLER HAS BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS. PROVIDE ITEMS BELOW AS PART OF THE INSTALLATION SCOPE OF WORK.
2. SAFETY DISCONNECT PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.

EQUIPMENT CONNECTION SCHEDULE - STISD MERCEDES - PRINCIPAL OFFICES

DESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT	NEW BRANCH CIRCUIT 60°C (COPPER)	EXISTING POWER SOURCE
ACCU-1	17	50	1) 25	480V/3-PHASE	REMOVE EXISTING	30A, 3P3F, 25AF, 600V, NEMA 3R	1" - 3#8 & #10G	RETAIN EXISTING	HVB
AHU-14	20	15	2) 25	480V/3-PHASE	REMOVE EXISTING	30A, 3PNF, 600V, NEMA 1	REMOVE EXISTING	3/4" - 3#10 & #10G	HVB

GENERAL NOTES:

A. LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B. PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

NOTES:

1) RETAIN AND REUSE EXISTING CIRCUIT BREAKER.

2) REMOVE EXISTING CIRCUIT BREAKER AND PROVIDE NEW TO MATCH NEW MOCP. PROVIDE ALL UL LISTED UNIT FROM EXISTING MANUFACTURER (SQUARE "D"). MATCH EXISTING KAIC.

PANELBOARD "HVB" (EXISTING): SQUARE "D" TYPE NEHB, 225A, 277/480V, 3Ø, 4W.



MECHANICAL GENERAL NOTES:

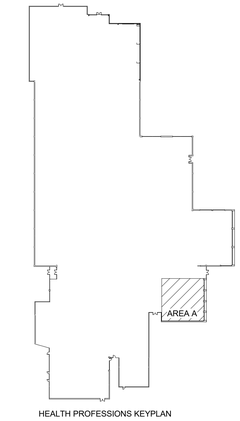
1. DUCTWORK IS TO BE RETAINED. ORIENT EQUIPMENT TO MINIMIZE DUCTWORK MODIFICATIONS. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE REQUIRED MODIFICATIONS FOR A COMPLETE AND SEAMLESS INSTALLATION.
2. PERFORM DUCTWORK TIE-IN FROM NEW UNITS TO EXISTING DUCTS VIA FLEX CONNECTORS AND TRANSITION DUCTWORK. FIELD-VERIFY EXISTING SPACE AVAILABILITY PRIOR TO BIDDING AND PRIOR TO SUBMITTING DUCTWORK SHOP DRAWINGS.
3. UNLESS OTHERWISE NOTED PROVIDE CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING ON PIPING SUPPORTS BY MIRO INDUSTRIES, MODEL 1.5, OR EQUAL.
4. AFTER ABOVE CEILING WORK IS COMPLETE, REINSTALL CEILING SYSTEMS, COMPONENTS, AND CEILING DEVICES TO ORIGINAL CONDITION.

MECHANICAL KEYED NOTES:

1. RECONNECT TO EXISTING DUCTWORK, UNLESS NOTED OTHERWISE.
2. INSTALL OWNER'S PRE-PURCHASED AIR HANDLER UNIT (AHU) IN MECHANICAL ROOM AND ITS ASSOCIATED ACCESSORIES. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE AHU PRIOR TO OVERFLOW. REFER TO DETAILS SHEET. TO EXTENT POSSIBLE, REUSE AND RECONNECT TO EXISTING DUCTWORK.
3. PROVIDE NEW REFRIGERANT PIPING IN THE SAME LOCATION AS EXISTING, INSULATED AND JACKETED AS SPECIFIED. SLEEVE ALL PENETRATION AND SEAL AIR TIGHT AROUND PIPE PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATIONS, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISHED LOOK. PROVIDE REFRIGERANT LINE SUPPORTS PER DETAILS AND SPECIFICATIONS.
4. INSTALL OWNER'S PRE-PURCHASED CONDENSING UNIT AND ITS ASSOCIATED ACCESSORIES. BOLT AND SECURE UNIT DOWN TO EXISTING CONCRETE PAD.
5. RE-BALANCE NEW AHU AIR DIFFUSERS TO MATCH THE CFM SHOWN ON THE SCHEDULE . COORDINATE WITH TAB CONTRACTOR.
6. PROVIDE NEW DUCTWORK CONNECTIONS BETWEEN THE NEW AHU AND THE EXISTING DUCTWORK TO CREATE A FULLY OPERATIONAL SYSTEM AS SCHEDULED.
7. PROVIDE NEW ALC THERMOSTAT THAT IS COMPATIBLE WITH EXISTING BUILDING AUTOMATION SYSTEM (BAS). COORDINATE ALL REQUIRED HARDWARE, SOFTWARE, PROGRAMMING, AND COMMISSIONING WITH THE BAS CONTRACTOR. MOUNT THERMOSTAT 4' A.F.F.
8. PROVIDE NEW DUCTWORK CONNECTIONS BETWEEN THE EXISTING DUCTWORK AND NEW DUCTWORK TO CREATE A FULLY OPERATIONAL SYSTEM.
9. EXISTING OA LOUVER AND IT DUCTWORK TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.

ELECTRICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING NEW HVAC EQUIPMENT.
2. CONNECT NEW HVAC EQUIPMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
3. REPROGRAM AND RECONNECT EXISTING DUCT SMOKE DETECTOR.
4. APPROXIMATE LOCATION OF EXISTING NOTIFIER FIRE ALARM CONTROL PANEL. PRIME CONTRACTORS SHALL CONTACT PRE-APPROVED SUBCONTRACTORS TO WORK ON SUCH SYSTEMS AS BUT NOT LIMITED TO: SUPERIOR ALARMS - (956) 793-9771.



HEALTH PROFESSIONS KEYPLAN

1 STISD Health Professions - Mechanical & Electrical Floor Plan

SCALE: 1/4" = 1'-0"

NORTH

No.	REVISIONS	BY
1 ADD	10-30-2026	ETHOS

GMS ARCHITECTS
1150 Paredes Line Rd.
Brownsville, TX
78526
(956) 546-0110
fax (956) 546-0196

STISD HVAC Project 26-27

MERCEDES, OLMITO, & EDINBURG, TEXAS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED PROFESSIONAL ENGINEER
07.31.2026

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: 07/31/2026
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: FJR
Job No.: 25V131
Sheet: ME3.02

ethos engineering
1126 S. COMMERCE ST.
HARLINGEN, TX
PHONE: 956.230.3435
TEXAS REGISTERED
ENGINEERING FIRM
F-15998

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1 STISD Medical Professions - Demo Mechanical & Electrical Floor Plan

SCALE: 1/4" = 1'-0"

NORTH

DEMOLITION GENERAL NOTES:

1. DRAWINGS SHOWING ALL EQUIPMENT LOCATIONS, DUCT AND PIPES, ELEVATIONS, AND ELECTRICAL INFORMATION HAVE BEEN RECREATED USING DRAWINGS AND SITE SURVEYS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SITE CONDITIONS IN ORDER TO MAKE ANY NECESSARY ADJUSTMENTS, PRIOR RO ORDERING MATERIAL OR COMMENCING INSTALLATION. CHANGE ORDERS WILL NOT BE APPROVED FOR DIMENSIONAL VERIFICATIONS REQUIRING MINOR ADJUSTMENTS NEEDED TO COMPLETE INSTALLATION.
2. OWNER MAY WISH TO KEEP DEMOLISHED EQUIPMENT AND MATERIAL. COORDINATE WITH, AND DISPOSE OF EQUIPMENT AND MATERIAL THAT OWNER DOES NOT RETAIN.

MECHANICAL DEMOLITION KEYED NOTES:

1 ADD

1. DEMOLISH EXISTING DUCTWORK AS SHOWN. REFER TO NEW PLAN FOR NEW DUCTWORK ROUTING.
2. DEMOLISH EXISTING DX AIR HANDLING UNIT, ASSOCIATED DUCTWORK, AND PLATFORM THAT WILL NO LONGER BE USED.
3. DEMOLISH EXISTING CONDENSING UNIT, PIPING AND CURB THAT WILL NO LONGER BE USED.
4. DEMOLISH ALC TEMPERATURE SENSOR AT THIS APPROXIMATE LOCATION. PREPARE FOR NEW TEMPERATURE SENSOR IN SAME LOCATION.
5. EXISTING FIRE DAMPERS TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.
6. EXISTING DIFFUSER/GRILLE AND ASSOCIATED DUCTWORK IS EXISTING TO REMAIN. PROTECT DURING ALL STAGES OF CONSTRUCTION.

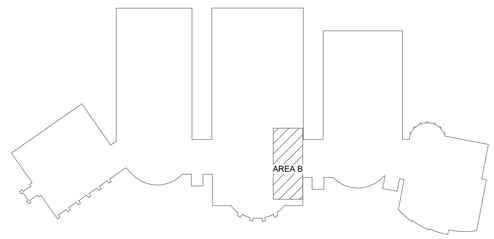
ELECTRICAL DEMOLITION KEYED NOTES:

1. APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING EXISTING HVAC EQUIPMENT.
2. DISCONNECT EXISTING HVAC EQUIPMENT FOR REPLACEMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
3. APPROXIMATE LOCATION OF EXISTING NOTIFIER FIRE ALARM CONTROL PANEL. PRIME CONTRACTORS SHALL CONTACT PRE-APPROVED SUBCONTRACTORS TO WORK ON SUCH SYSTEMS AS BUT NOT LIMITED TO: SUPERIOR ALARMS - (956) 793-9771.



2 EXISTING NOTIFIER FACP IMAGE

SCALE : NOT TO SCALE



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Job No.: 25V131
Sheet: ME4.01

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(PRE-PURCHASED)AIR HANDLING UNIT SCHEDULE STISD OLMITO - IDF ROOM

MARK	SERVES	UNIT TYPE	TOTAL CFM	OUTSIDE AIR CFM	ESP IN WG	FAN TYPE	EX. MIN MOTOR HP	MAX MOTOR bHP	ELECTRICAL V-PH-HZ	COOLING TOTAL MBTUH	COOLING SENS. MBTUH	COOLING EAT DB/WB (F)	COOLING LAT DB/WB (F)	WEIGHT (LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
AHU-1	IDF B112	VERTICAL DX SPLIT	2,030	-	0.5	ECM	1	4	208-1-60	57.7	45.8	75.0/62.5	55.3/43.4	190	ALL	LENNOX	CBK45UHVT-060

NOTES:

1. AIR HANDLER HAS BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS. PROVIDE ITEMS BELOW AS PART OF THE INSTALLATION SCOPE OF WORK.
2. SAFETY DISCONNECT PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
3. REFER TO SEQUENCES OF OPERATION FOR CONTROLS SCOPE OF WORK.

1 ADD

EQUIPMENT CONNECTION SCHEDULE - STISD OLMITO - IDF ROOM

DESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT	NEW BRANCH CIRCUIT 60°C (COPPER)	EXISTING POWER SOURCE	NEW POWER SOURCE
AHU-1	8	2) 20	1) 15	208V/1-PHASE	REMOVE EXISTING	30A, 3PNF, 240V, NEMA 1	REMOVE EXISTING	1/2" - 2#12 & #12G	EH1	MDF
ACCU-1	23	2) 15	1) 40	208V/3-PHASE	REMOVE EXISTING	60A, 3PNF, 240V, NEMA 4XSS	REMOVE EXISTING	3/4" - 3#8 & 10G	EH1	MDF

GENERAL NOTES:

A. LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

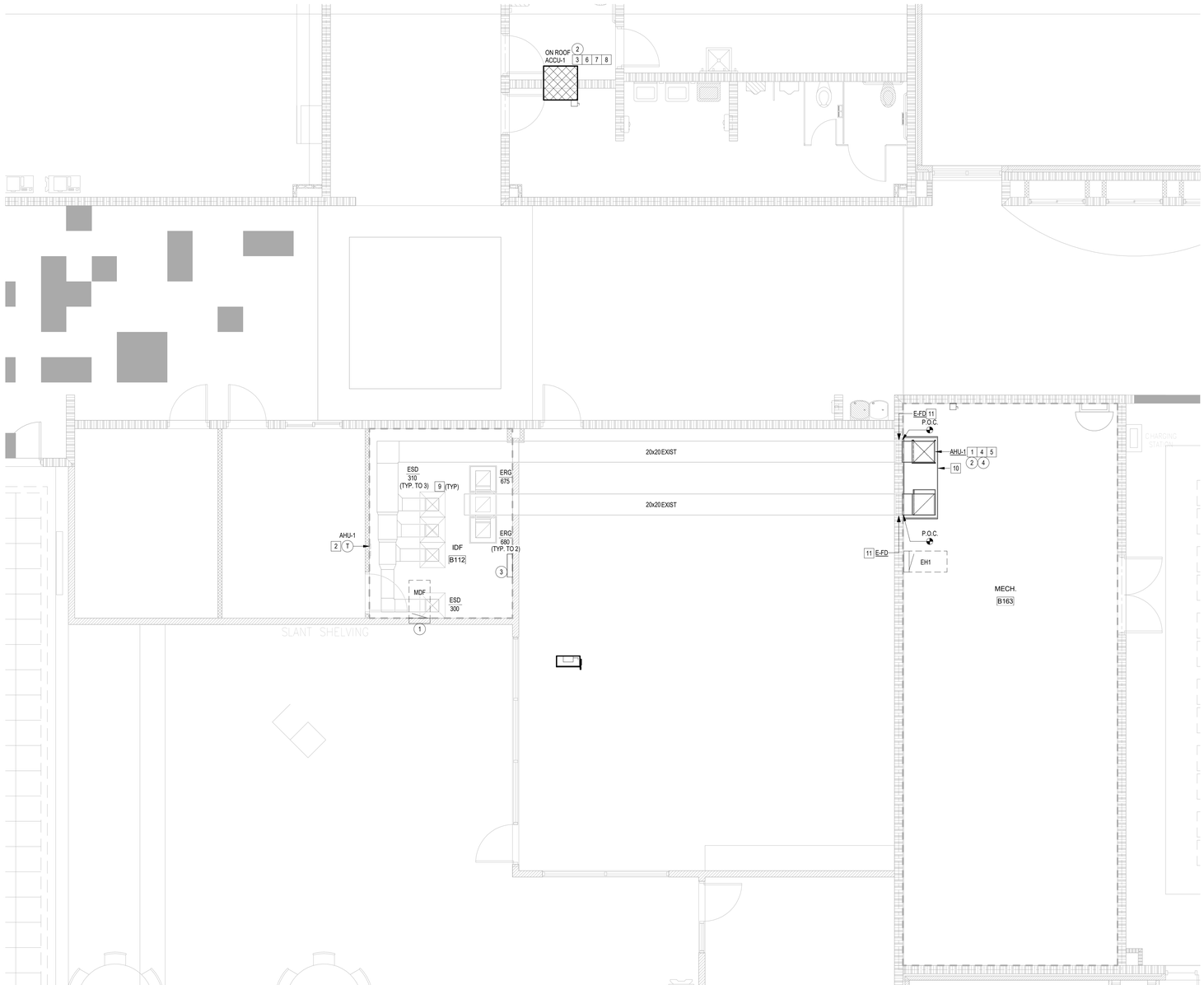
B. PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

NOTES:

1) PROVIDE NEW CRICUIT BREAKER TO MATCH NEW MOCP IN NEW POWER SOURCE PANELBOARD. PROVIDE ALL UL LISTED UNIT FROM EXISTING MANUFACTURER (EATON). MATCH EXISTING KAIC.

2) EXISTING CIRCUIT BREAKER TO REMAIN AS SPARE.

PANELBOARD "MDF" (EXISTING): EATON POW-R-LINE 1A, 225A, 208Y/120V, 3Ø, 4W, 10KAIC



1 STISD Medical Professions - Mechanical & Electrical Floor Plan

SCALE: 1/4" = 1'-0"

NORTH

(PRE-PURCHASED) ACCU SCHEDULE - STISD OLMITO - IDF ROOM

MARK	SERVING	TOTAL MBTUH	COND DB	ELECTRICAL V-PH-HZ	SEER2 / EER2	STEPS OF CAPACITY	FANS HP	(CIRCUIT) MCA	(CIRCUIT) MOCP	WEIGHT (LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
ACCU-1	AHU-1	57.7	95	208-3-60	14.7/11.2	2	1	23	40	446	ALL	LENNOX	ML17KC2-060-233

NOTES:

1. ACCU'S HAVE BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS. PROVIDE ITEMS BELOW AS PART OF THE INSTALLATION SCOPE OF WORK.
2. INSTALL OWNER PROVIDED LOUVER HAIL GUARD.
3. PROVIDE LOW AMBIENT KIT, SIGHT GLASS, SERVICE VALVES, FILTER DRYER, SOLENOID VALVES, TXVS, ANTI-SHORT CYCLE TIMER.
4. PROVIDE FREEZESTAT/DEFROST CONTROLLER TO PROTECT COMPRESSOR(S) WHEN ICE BUILD-UP IS DETECTED IN THE EVAPORATOR COIL.
5. SAFETY DISCONNECT TO BE PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
6. PROVIDE REFRIGERANT PIPING, INCLUDING EDA PIPING KIT, AS PER SPECIFICATIONS AND AS PER EQUIPMENT SUBMITTAL SIZING GUIDELINES. PROVIDE INSULATION AND ALUMINUM METAL JACKETING AROUND INSULATION FOR ALL EXTERIOR EXPOSED LINES.
7. BOLT DOWN CONDENSING UNIT TO STRUCTURAL SUPPORT. REFER TO STRUCTURAL DRAWINGS.

1 ADD

MECHANICAL GENERAL NOTES:

1. DUCTWORK IS TO BE RETAINED. ORIENT EQUIPMENT TO MINIMIZE DUCTWORK MODIFICATIONS. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE REQUIRED MODIFICATIONS FOR A COMPLETE AND SEAMLESS INSTALLATION.
2. PERFORM DUCTWORK TIE-IN FROM NEW UNITS TO EXISTING DUCTS VIA FLEX CONNECTORS AND TRANSITION DUCTWORK. FIELD-VERIFY EXISTING SPACE AVAILABILITY PRIOR TO BIDDING AND PRIOR TO SUBMITTING DUCTWORK SHOP DRAWINGS.
3. UNLESS OTHERWISE NOTED PROVIDE CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING ON PIPING SUPPORTS BY MIRO INDUSTRIES, MODEL 1.5, OR EQUAL.
4. AFTER ABOVE CEILING WORK IS COMPLETE, REINSTALL CEILING SYSTEMS, COMPONENTS, AND CEILING DEVICES TO ORIGINAL CONDITION.

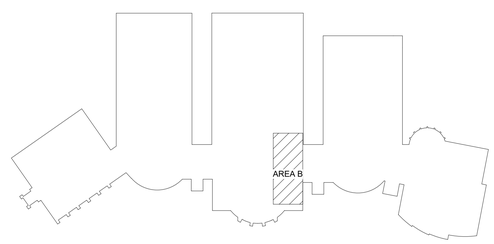
MECHANICAL KEYED NOTES:

1 ADD

1. PROVIDE FAN COIL UNIT AS SCHEDULED. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE FCU PRIOR TO OVERFLOW. AUXILIARY DRAIN SYSTEM SHALL BE AS PER IMC-2021 SECTION 307.2.3. SEE DETAIL SHEET. DROP REFRIGERANT LINES NEXT TO UNIT TO AVOID INTERFERENCE WITH MAINTENANCE ACCESS. POSITION UNIT TO ALLOW REQUIRED CLEARANCES.
2. PROVIDE ALC TEMPERATURE SENSOR AS PER SPECIFICATIONS. INSTALL IN SAME LOCATION AS EXISTING.
3. PROVIDE ROOF MOUNTED AIR COOLED CONDENSING UNIT AND INSULATED REFRIGERANT PIPING PER SCHEDULE AND SPECIFICATIONS. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES AND PROVIDE ROOF CURB PER DETAIL. ATTACHMENT SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
4. PROVIDE FCU PLATFORM USING 3" X 3" X 1/4" GALVANIZED STEEL ANGLE IRON WITH WELDED JOINTS. ENCLOSE PLATFORM USING 1" THICK MOISTURE RESISTANT PLYWOOD AND BOLT TO BRACKET WITH 1/4" GALVANIZED BOLTS. COORDINATE PLATFORM SIZE ON SITE. SET UNIT ON 1/2" NEOPRENE PAD ON PLATFORM. PLATFORM TO BE USED AS A RETURN AIR PLENUM AND BE SEALED AIRTIGHT.
5. ROUTE TRAPPED COPPER CONDENSATE PIPING TO EXISTING FLOOR DRAIN. CLEAN FLOOR DRAIN AS NECESSARY FOR AN UNOBSTRUCTED FLOW.
6. ROUTE REFRIGERANT PIPING TO INDOOR UNIT. COORDINATE ROUTING WITH OTHER TRADES PRIOR TO INSTALLATION. SLEEVE ROOF PENETRATION. SEAL AIRTIGHT AROUND PIPE PENETRATION.
7. PROVIDE REFRIGERANT LINE SUPPORTS. SEE ASSOCIATED DETAIL.
8. PROVIDE 1" INSULATION & PROTECTIVE ALUMINUM JACKETING ON EXPOSED REFRIGERANT LINES. SEE SPECIFICATIONS.
9. EXISTING DIFFUSER/GRILLE AND ASSOCIATED DUCTWORK IS EXISTING TO REMAIN. PROTECT DURING ALL STAGES OF CONSTRUCTION. CONTRACTOR TO RE-BALANCE EXISTING DIFFUSER TO NEW CFM.
10. PROVIDE NECESSARY TRANSITIONS, DUCTWORK AND CONNECTIONS FROM NEW FAN COIL UNIT TO EXISTING DUCTWORK CONNECTIONS.
11. EXISTING FIRE DAMPERS TO REMAIN. PROTECT DURING ALL PHASES OF CONSTRUCTION.

ELECTRICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING NEW HVAC EQUIPMENT.
2. CONNECT NEW HVAC EQUIPMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
3. APPROXIMATE LOCATION OF EXISTING NOTIFIER FIRE ALARM CONTROL PANEL. PRIME CONTRACTORS SHALL CONTACT PRE-APPROVED SUBCONTRACTORS TO WORK ON SUCH SYSTEMS AS BUT NOT LIMITED TO: SUPERIOR ALARMS - (956) 793-9771.
4. PROVIDE NEW DUCT SMOKE DETECTOR.



MEDICAL ACAD. KEYPLAN

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TEXAS REGISTERED
ENGINEERING FIRM
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No.	REVISIONS	BY
1 ADD	10-30-2026	ETHOS

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STISD HVAC Project 26-27

MERCEDES, OLMITO, & EDINBURG, TEXAS

LICENSED PROFESSIONAL ENGINEER
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07.31.2026

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Drawn By:	FJR
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(PRE-PURCHASED) EDINBURG STISD DX ROOF TOP UNIT SCHEDULE

MARK	NOMINAL TONS	SERVERS	SUPPLY CFM	OA CFM	ESP (INCHES)	MIN HP	MCA A	MOCP A	ELECTRICAL V-PH-HZ	AIR ON COND.	COOLING				HEATING		CONVENIENCE OUTLETS	MIN. IEER/EER	WEIGHT (LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
											TOTAL	SENSIBLE	EAT	LAT	KW	STG.						
											BTUH	BTUH	DB/WB	DB/WB								
RTU-1-D	3	ALBERT HUGHES	1140	150	1	0.75	29.7	40	208-3-60	100	33,746	25,691	78/65	57.50/55.20	5	1	FACTORY INSTALLED & UNIT POWERED	14.0/12.0	684	ALL	DAIKIN	DSC036
RTU-2-D	7.5	ALBERT HUGHES	3250	415	1	2.4	88.2	90	208-3-60	100	87,900	70,648	78/65	58.2/56.10	30	2	FACTORY INSTALLED & UNIT POWERED	16.0/12.0	1215	ALL	DAIKIN	DSC090
RTU-3-D	7.5	ALBERT HUGHES	3250	200	1	2.4	88.2	90	208-3-60	100	87,900	70,648	78/65	58.2/56.10	30	2	FACTORY INSTALLED & UNIT POWERED	16.0/12.0	1215	ALL	DAIKIN	DSC090
RTU-4-D	7.5	ALBERT HUGHES	3250	150	1	2.4	88.2	90	208-3-60	100	87,900	70,648	78/65	58.2/56.10	30	2	FACTORY INSTALLED & UNIT POWERED	16.0/12.0	1215	ALL	DAIKIN	DSC090

NOTES:

1. 1 ADD RTU'S HAVE BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS.
2. INSTALL OWNER PROVIDED CONDENSER HAIL GUARD.
3. 1 ADD NOT USED.
4. 1 ADD PROVIDE MOTORIZED OA DAMPER, CONTROLLER, UL LEAKAGE DAMPERS, DEMAND CONTROL VENTILATION, AND NO BAROMETRIC RELIEF DAMPERS ANYWHERE.
5. 1 ADD NOT USED.
6. PROVIDE IBC 2021 COMPLIANT 24" NEW ROOF CURB AND ATTACHMENTS FROM UNIT TO CURB AND CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:
   1) ATTACHMENT OF EQUIPMENT TO CURB.
   2) CURB TO STRUCTURE.
   3) CURB AND ATTACHMENT HARDWARE STRENGTH.
   REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS.
   EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 1 AND 2 LISTED ABOVE.
   BOTH, THE ENGINEERED ANALYSIS AND THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING AND PROJECT SITE AND STAMPED AND SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.

EQUIPMENT CONNECTION SCHEDULE

DESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT	NEW BRANCH CIRCUIT 60°C (COPPER)	EXISTING POWER SOURCE	NEW POWER SOURCE
RTU-1D	29.7	60	40	208V/3-PHASE	REMOVE EXISTING	60A, 3PNF, 240V, NEMA 3R	REMOVE EXISTING	3/4" - 3#8 & 10G	MDP	MDP
RTU-2D	88.2	30	90	208V/3-PHASE	REMOVE EXISTING	100A, 3PNF, 240V, NEMA 3R	REMOVE EXISTING	1.25" - 3#2 & #8G	MDP	MDP
RTU-3D	88.2	80	90	208V/3-PHASE	REMOVE EXISTING	100A, 3PNF, 240V, NEMA 3R	REMOVE EXISTING	1.25" - 3#2 & #8G	MDP	MDP
RTU-4D	88.2	60	90	208V/3-PHASE	REMOVE EXISTING	100A, 3PNF, 240V, NEMA 3R	REMOVE EXISTING	1.25" - 3#2 & #8G	MDP	MDP

GENERAL NOTES:

A. LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B. PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

Branch Panel: MDP

Location: ELECTRICAL ROOM
Supply From: UILITY
Mounting: SURFACE
Enclosure: Nema 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65,000
Mains Type: C.B.
Mains Rating: 600 A
MCB Rating: 600 A

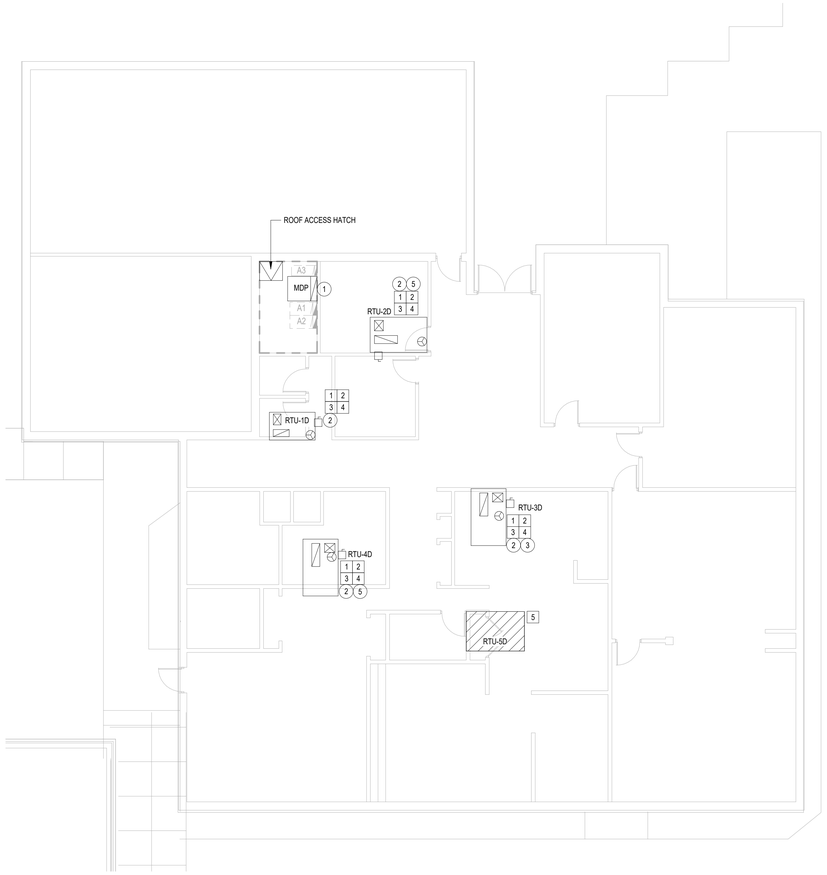
Notes:

CKT	Load Classification Abbreviation	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	Load Classification Abbreviation	CKT
1	HTG; MTRS	RTU-1D	40 A	3	2350 VA	10960 VA					3	90 A	RTU-2D	HTG; MTRS	2
3	--	--	--	--			2350 VA	10960...			--	--	--	--	4
5	--	--	--	--					2350 VA	10960 VA	--	--	--	--	6
7	HTG; MTRS	RTU-3D	90 A	3	10960 VA	10960 VA					3	90 A	RTU-4D	HTG; MTRS	8
9	--	--	--	--			10960...	10960...			--	--	--	--	10
11	--	--	--	--					10960 VA	10960 VA	--	--	--	--	12
13	DIV	PANELS A1, A2	300 A	3	21700 VA	0 VA					3	20 A	SPARE	--	14
15	--	--	--	--			21700...	0 VA			--	--	--	--	16
17	--	--	--	--					21700 VA	0 VA	--	--	--	--	18
19	--	SPARE	60 A	3	0 VA	0 VA					3	30 A	SPARE	--	20
21	--	--	--	--			0 VA	0 VA			--	--	--	--	22
23	--	--	--	--					0 VA	0 VA	--	--	--	--	24
		Total Load:			56930 VA		56930 VA		56930 VA						
		Total Amps:			474 A		474 A		474 A						

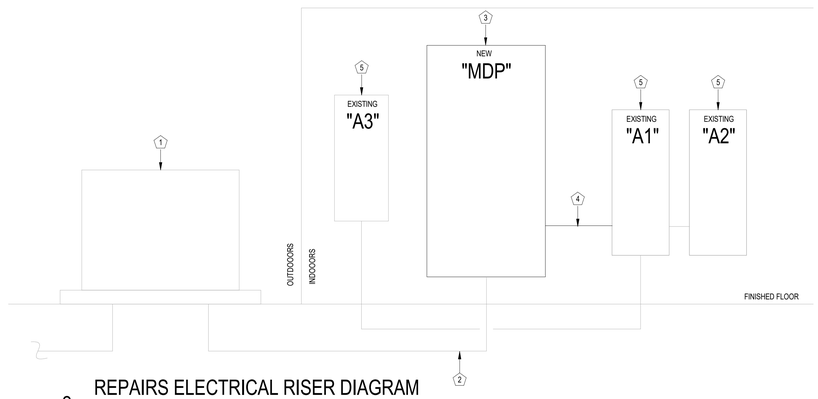
Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HEATING (HTG)	95000 VA	100.00%	95000 VA		
MOTORS (MTRS)	10690 VA	106.74%	11410 VA	**Total Conn. Load:**	170790 VA
DIVERSE (DIV)	65100 VA	100.00%	65100 VA	**Total Est. Demand:**	171510 VA
				Total Conn.:	474 A
				Total Est. Demand:	476 A

Notes:
1. PROVIDE SERVICE ENTRANCE RATED.
2. PROVIDE ALL RTU CIRCUIT BREAKER HACR TYPE.
3. PROVIDE TAYLOR PHASE GUARD PROTECTION TO PANEL "RTU" CIRCUIT BREAKERS.



1 STISD Edinburg - Albert H. Mechanical & Electrical Floor Plan
SCALE: 1/8" = 1'-0"
NORTH



2 REPAIRS ELECTRICAL RISER DIAGRAM
SCALE : NOT TO SCALE

ELECTRICAL RISER DIAGRAM KEYED NOTES

1. EXISTING ELECTRICAL UTILITY PAD MOUNT TRANSFORMER TO REMAIN.
2. RECONNECT EXISTING FEEDER. IF EXISTING FEEDER DOES NOT REACH NEW POINT OF CONNECTION PROVIDE A WIRING GUTTER TO SPLICE AND EXTEND EXISTING FEEDERS. PROVIDE POLARIS CONNECTORS.
3. PROVIDE NEW PANELBOARD, SEE PANEL SCHEDULE.
4. PROVIDE 3" - 4#350KCMIL & #4G.
5. EXISTING PANELBOARD TO REMAIN AS IS.

MECHANICAL GENERAL NOTES:

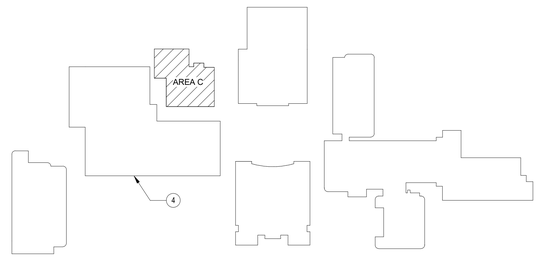
1. DUCTWORK IS TO BE RETAINED. ORIENT EQUIPMENT TO MINIMIZE DUCTWORK MODIFICATIONS. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE REQUIRED MODIFICATIONS FOR A COMPLETE AND SEAMLESS INSTALLATION.
2. PERFORM DUCTWORK TIE-IN FROM NEW UNITS TO EXISTING DUCTS VIA FLEX CONNECTORS AND TRANSITION DUCTWORK. FIELD-VERIFY EXISTING SPACE AVAILABILITY PRIOR TO BIDDING AND PRIOR TO SUBMITTING DUCTWORK SHOP DRAWINGS.
3. UNLESS OTHERWISE NOTED PROVIDE CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING ON PIPING SUPPORTS BY MIRO INDUSTRIES, MODEL 1.5, OR EQUAL.
4. AFTER ABOVE CEILING WORK IS COMPLETE, REINSTALL CEILING SYSTEMS, COMPONENTS, AND CEILING DEVICES TO ORIGINAL CONDITION.

MECHANICAL KEYED NOTES:

1. INSTALL OWNER'S PRE-PURCHASED DX RTU. DISCONNECT EXISTING CONTROLS AND REPLACE WITH NEW CONTROLS. PROVIDE NEW 24" ROOFTOP CURB AS PER SPECIFICATIONS. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE ROOF CURB TO INSTALL EQUIPMENT ON ROOF. SECURE EQUIPMENT TO ROOF CURB AND ROOF CURB TO ROOF STRUCTURE AS PER DIV. 7 SPECIFICATIONS. ATTACHMENTS SHALL BE CAPABLE OF WITHSTANDING THE LOCAL WIND PRESSURES.
2. RECONNECT TO EXISTING DUCTWORK, UNLESS OTHERWISE NOTED.
3. PROVIDE NEW COPPER CONDENSATE DRAIN LINES WITH P-TRAPS TO NEW UNIT AND EXTEND THEM TO EXISTING DRAIN RECEPTOR.
4. 1 ADD PROVIDE NEW TEMPERATURE SENSOR AS PER SPECIFICATIONS. INSTALL IN EXISTING TEMPERATURE SENSOR LOCATIONS. COORDINATE WITH CONTROLS CONTRACTOR (ALC). REFER TO RTU SCHEDULE FOR MORE INFORMATION. PROVIDE CLEAR LOCKING COVER FOR ALL SENSORS.
5. CONTRACTOR SHALL PATCH, CAP, AND FULLY RESTORE ROOF PENETRATIONS AND ROOFING SYSTEM TO ORIGINAL OR BETTER CONDITION.

ELECTRICAL KEYED NOTES:

1. APPROXIMATE LOCATION OF NEW PANELBOARD SERVING NEW HVAC EQUIPMENT.
2. CONNECT NEW HVAC EQUIPMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
3. REPROGRAM AND RECONNECT EXISTING DUCT SMOKE DETECTOR.
4. APPROXIMATE LOCATION OF EXISTING NOTIFIER FIRE ALARM CONTROL PANEL REFER TO KEYPLAN. PRIME CONTRACTORS SHALL CONTACT PRE-APPROVED SUBCONTRACTORS TO WORK ON SUCH SYSTEMS AS BUT NOT LIMITED TO: SUPERIOR ALARMS - (956) 793-9771.
5. PROVIDE NEW DUCT SMOKE DETECTOR.



EDINBURG KEYPLAN

No.	REVISIONS	BY
1 ADD	10-30-2026	ETHOS

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STISD HVAC Project 26-27

MERCEDES, OLMITO, & EDINBURG, TEXAS

STATE OF TEXAS
CESAR A. GONZALEZ
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LICENSED PROFESSIONAL ENGINEER
07.31.2026

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Gomez Mendez Saenz Inc.
Architects-Planners
Interior Designers

Date: 07/31/2026
Scale: As Noted
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(PRE-PURCHASED) CHW AIR HANDLER UNIT SCHEDULE-EDINBURG LIBRARY BUILDING

MARK		NEW	NEW				FAN ELECTRICAL							EAT	CHILLED WATER COIL LAT			WEIGHT	MANUFACTURER &	NOTES
	TYPE	SUPPLY CFM	OA CFM	ESP (INCHES)	FAN QTY	MIN. HP PER FAN	V/P/H	FEI / FAN	FAN MCA	KW	FAN MOCP	TOTAL MBH	SENSIBLE MBH	DB/WB	DB/WB	EWT/LWT	GPM	(LBS)	MODEL NUMBER	
AHU-1	SINGLE PATH, HORIZ	4,000	600	2.00	1.00	5.00	208/3/60	1.33	19	2.80	-	132.00	100.28	78/65	55.1/54	45/52.7	34.40	1297	CAH009GDGM	ALL
AHU-2	SINGLE PATH, HORIZ	2,000	300	2.00	1	2.00	208/3/60	1.31	8.13	1.4	-	70,717	51,175	80/67	56.6/55.7	44/54.6	13.3	831	CAH005GDGM	ALL

(1 ADD) (4 ADD) (1 ADD) (1 ADD)

NOTES:

1. AIR HANDLER HAS BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS. PROVIDE ITEMS BELOW AS PART OF THE INSTALLATION SCOPE OF WORK.
2. SAFETY DISCONNECT PROVIDED BY DIV. 26. COORDINATE WITH ELECTRICAL CONTRACTOR.
3. REFER TO SEQUENCES OF OPERATION FOR CONTROLS SCOPE OF WORK UNDER THE BASE BID AND ALTERNATE.
4. PROVIDE ACTUATORS FOR RA AND OA DAMPERS. COORDINATE WITH CONTROLS CONTRACTOR.
5. (1 ADD) EXISTING DUCT MOUNTED ELECTRIC HEATER TO BE REUSED.
6. CONTRACTOR TO INSTALL AND WIRE OWNER PROVIDED VFD.

(PRE-PURCHASED) STISD - EDINBURG VFD SCHEDULE

MARK	EQUIPMENT SERVED	MOTOR HP	ENCLOSURE	ELECTRICAL V/P/Hz	MANUFACTURER & MODEL NUMBER	NOTES
VFD-AHU-1	LIBRARY AHU-1	5	NEMA 1	208/3/60	S102005T1E013CMD2	ALL
VFD-AHU-2	LIBRARY AHU-2	2	NEMA 1	208/3/60	S102002T1E013CMD2	ALL
VFD-E-RTU-1	LIBRARY RTU-1	1.5	NEMA 3R	208/3/60	S1021H5T1E3R3CMD2	ALL
VFD-E-RTU-2	LIBRARY RTU-2	3	NEMA 3R	208/3/60	S102003T1E3R3CMD2	ALL
VFD-E-RTU-3	LIBRARY RTU-3	5	NEMA 3R	208/3/60	S102005T1E3R3CMD2	ALL

NOTES:

1. VFD HAS BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS.
2. CONTRACTOR RESPONSIBLE FOR TRANSPORTING THE EQUIPMENT FROM OWNER'S WAREHOUSE TO JOBSITE. COORDINATE WITH OWNER.
3. COORDINATE WITH PERRY MECHANICAL SYSTEMS AND INCLUDE ALL ASSOCIATED COSTS IN THE BID.
4. PROVIDE DDC CONTROLS THROUGH AUTOMATED LOGIC. AUTOMATED LOGIC CONTRACTOR SHALL PROVIDE STARTUP AND PROGRAMMING OF ALL CONTROL SEQUENCES.

EQUIPMENT CONNECTION SCHEDULE - EDINBURG LIBRARY BUILDING

DESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT	NEW BRANCH CIRCUIT 60°C (COPPER)	POWER SOURCE
AHU-1	19	20	1) 45	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	REMOVE EXISTING	3/4" - 3#6 & #10G	1P
AHU-2	8.13	15	1) 20	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	REMOVE EXISTING	1/2" - 3#12 & #12G	1P
E-RTU-1	-	15	-	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	RETAIN EXISTING	-	1P
E-RTU-2	-	35	-	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	RETAIN EXISTING	-	1P
E-RTU-3	-	20	-	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	RETAIN EXISTING	-	1P

GENERAL NOTES:

A. LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B. PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

NOTES:

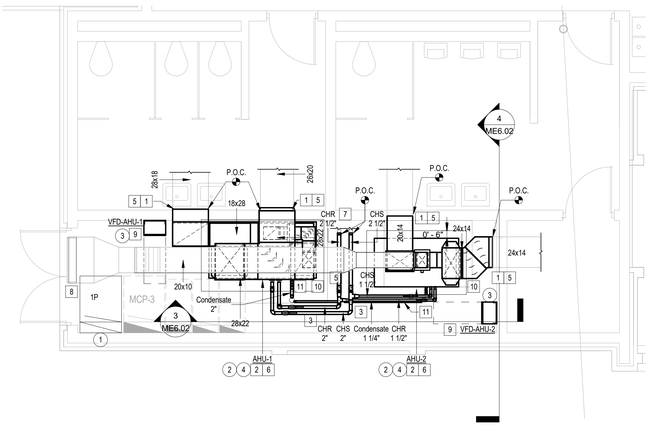
1) REMOVE EXISTING CIRCUIT BREAKER AND PROVIDE NEW TO MATCH NEW MOCP. PROVIDE ALL UL LISTED UNIT FROM EXISTING MANUFACTURER (SQUARE "D"). MATCH EXISTING KAIC.

2) PROVIDED BY DIV.23; INSTALLED AND CONNECTED BY DIV.26.

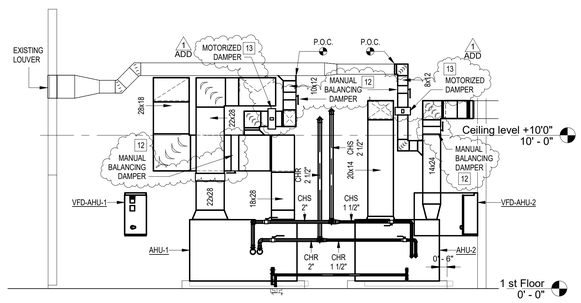
PANELBOARD "1P" (EXISTING): SQUARE "D" I-LINE 600A, 208Y/120V, 3Ø, 4W, 30KAIC



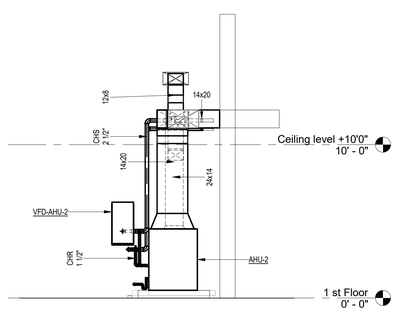
1 STISD Edinburg - Library Mechanical & Electrical Floor Plan
SCALE: 1/8" = 1'-0"
NORTH



2 Edinburg - Library Mechanical & Electrical Floor Plan - Enlarged
SCALE: 1/4" = 1'-0"



3 Mechanical Room Section View 1
SCALE: 1/4" = 1'-0"



4 Mechanical Room Section View 2
SCALE: 1/4" = 1'-0"

MECHANICAL GENERAL NOTES:

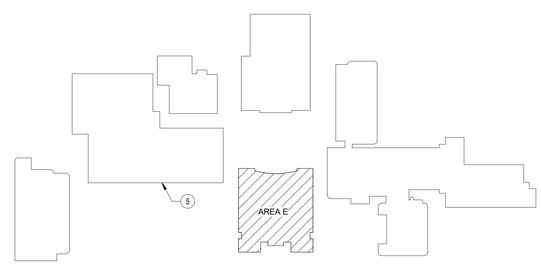
1. DUCTWORK IS TO BE RETAINED. ORIENT EQUIPMENT TO MINIMIZE DUCTWORK MODIFICATIONS. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE REQUIRED MODIFICATIONS FOR A COMPLETE AND SEAMLESS INSTALLATION.
2. PERFORM DUCTWORK TIE-IN FROM NEW UNITS TO EXISTING DUCTS VIA FLEX CONNECTORS AND TRANSITION DUCTWORK. FIELD-VERIFY EXISTING SPACE AVAILABILITY PRIOR TO BIDDING AND PRIOR TO SUBMITTING DUCTWORK SHOP DRAWINGS.
3. UNLESS OTHERWISE NOTED PROVIDE CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING ON PIPING SUPPORTS BY MIRO INDUSTRIES, MODEL 1.5, OR EQUAL.
4. AFTER ABOVE CEILING WORK IS COMPLETE, REINSTALL CEILING SYSTEMS, AND COMPONENTS TO ORIGINAL CONDITION.

MECHANICAL KEYED NOTES:

1. RECONNECT TO EXISTING DUCTWORK, UNLESS NOTED OTHERWISE.
2. INSTALL OWNER'S PRE-PURCHASED AIR HANDLER UNIT (AHU) IN MECHANICAL ROOM AND ITS ASSOCIATED ACCESSORIES. PROVIDE WATER LEVEL DETECTION DEVICE THAT WILL SHUT-OFF THE AHU PRIOR TO OVERFLOW. REFER TO DETAILS SHEET. TO EXTENT POSSIBLE, REUSE AND RECONNECT TO EXISTING DUCTWORK.
3. (1 ADD) PROVIDE CHILLED WATER PIPING AS PER SPECIFICATIONS. ROUTE CHW PIPING AS SHOWN AND PROVIDE MANUAL ISOLATION VALVES, MOTORIZED CONTROLS VALVES, AND OTHER HYDRONIC ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION. REFER TO COIL CONNECTION DETAIL ON DETAILS SHEET FOR MORE INFORMATION. PROVIDE INSULATION, JACKETING, AND SUPPORTS AS PER DETAILS AND SPECIFICATIONS.
4. INSTALL PRE-PURCHASED VFDS, COORDINATE WITH ALC CONTROLS FOR COMPLETE SYSTEM INTEGRATION, PERFORM START-UP AND COMMISSIONING, INCLUDING COMMUNICATIONS SETUP, POINT VERIFICATION, PROGRAMMING COORDINATION, AND FUNCTIONAL TESTING TO ENSURE PROPER OPERATION.
5. PROVIDE NEW DUCTWORK CONNECTIONS BETWEEN THE NEW AHU AND THE EXISTING DUCTWORK TO CREATE A FULLY OPERATIONAL SYSTEM AS SCHEDULED.
6. PROVIDE NEW TEMPERATURE, RH, CO2, SENSORS AS PER SPECIFICATIONS. MECHANICAL CONTRACTOR TO LOCATE EXISTING SENSORS TO REPLACE WITH NEW SENSORS IN SAME LOCATION. ALL DDC TO GO THROUGH AUTOMATED LOGIC CONTROLS
7. CONNECT NEW CHILLED WATER PIPING INTO EXISTING CHILLED WATER PIPING AT THIS APPROXIMATE LOCATION. FIELD VERIFY EXACT LOCATION OF EXISTING CHILLED WATER PIPING.
8. EXISTING OA LOUVER TO REMAIN. CONNECT NEW OUTSIDE AIR DUCTWORK INTO NEW RETURN AIR DUCTWORK AS SHOWN. REFER TO SECTION VIEWS FOR MORE INFORMATION.
9. (1 ADD) INSTALL PRE-PURCHASED VFD PER SCHEDULE WITH NEMA-1 ENCLOSURE FOR MOUNTING INDOORS. (TYPICAL)
10. INSTALL PRE-PURCHASED CHILLED WATER AHU ON NEW HOUSEKEEPING CONCRETE PAD. PLUMBING CONTRACTOR TO RELOCATE EXISTING FLOOR DRAIN TO EXTEND OUTSIDE OF CONCRETE PAD FOOTPRINT.
11. ROUTE COPPER CONDENSATE PIPING TO RELOCATED FLOOR DRAIN. COORDINATE WITH PLUMBING DRAWING FOR NEW FLOOR DRAIN LOCATION.
12. PROVIDE MANUAL BALANCING DAMPERS AT OUTSIDE AIR AND RETURN AIR DUCTWORK AS SHOWN.
13. PROVIDE MOTORIZED DAMPER AS PER SPECIFICATIONS. INSTALL DAMPER AT OUTSIDE AIR DUCTWORK AS SHOWN. COORDINATE WITH ELECTRICAL & CONTROLS CONTRACTOR FOR MOTORIZED DAMPER REQUIREMENTS.

ELECTRICAL KEYED NOTES

1. APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING NEW HVAC EQUIPMENT.
2. CONNECT NEW HVAC EQUIPMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
3. CONNECT NEW VARIABLE FREQUENCY DRIVE. SEE EQUIPMENT CONNECTION SCHEDULE.
4. REPROGRAM AND RECONNECT EXISTING DUCT SMOKE DETECTOR.
5. APPROXIMATE LOCATION OF EXISTING NOTIFIER FIRE ALARM CONTROL PANEL. REFER TO KEYPLAN. PRIME CONTRACTORS SHALL CONTACT PRE-APPROVED SUBCONTRACTORS TO WORK ON SUCH SYSTEMS AS BUT NOT LIMITED TO: SUPERIOR ALARMS - (956) 793-9771.



EDINBURG KEYPLAN

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1 ADD	10-30-2026	ETHOS

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STISD HVAC Project 26-27

MERCEDES, OLMITO, & EDINBURG, TEXAS

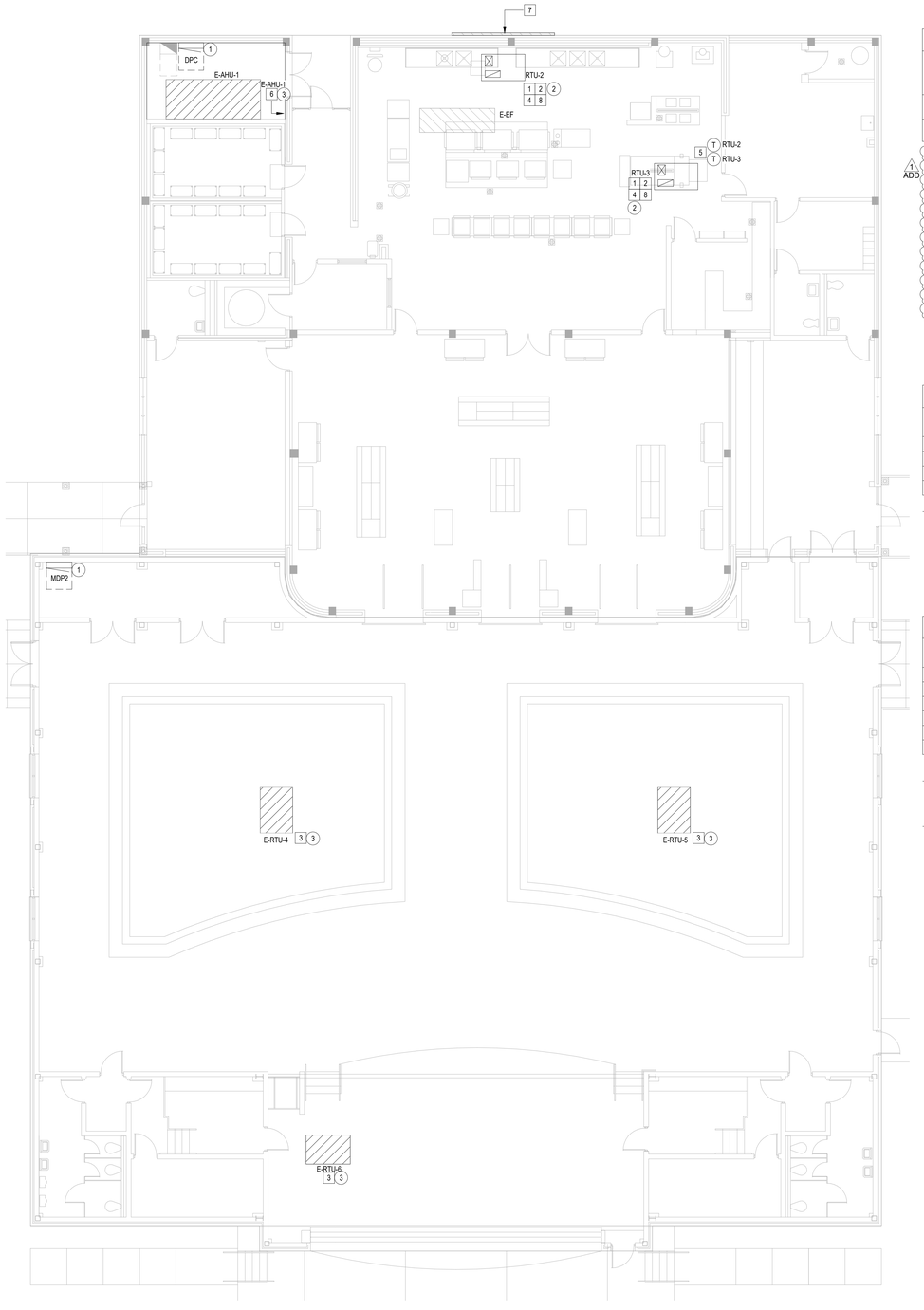
STATE OF TEXAS
CESAR A. GONZALEZ
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Date: 07/31/2026
Scale: As Noted
Project Architect: David Monreal, AIA
Drawn By: FJR
Job No.: 25V131
Sheet: ME6.02

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1 STISD Edinburg - Kitchen Mechanical Floor Plan

SCALE: 1/8" = 1'-0"

NORTH

(PRE-PURCHASED) EDINBURG STISD DX ROOF TOP UNIT SCHEDULE

MARK	NOMINAL TONS	SERVERS	SUPPLY CFM	OA CFM	ESP (INCHES)	MIN HP	MCA A	MOCP A	ELECTRICAL V-PH-HZ	AIR ON COND.	COOLING				HEATING		CONVENIENCE OUTLETS	MIN IEER/EER	WEIGHT (LBS.)	NOTES	MANUFACTURER	MODEL NUMBER
											TOTAL	SENSIBLE	EAT	LAT	KW	STG.						
											BTUH	BTUH	DB/WB	DB/WB								
RTU-2	3	KITCHEN	1140	140	1	0.75	29.7	40	208-3-60	100	33,746	25,691	78/65	57.50/55.20	5	1	FACTORY INSTALLED & UNIT POWERED	14.0/12.0	484	ALL	DAIKIN	DSC036
RTU-3	5	KITCHEN	1890	200	1	1.0	38.7	60	208-3-60	100	55,668	42,662	78/65	57.40/55.30	5	1	FACTORY INSTALLED & UNIT POWERED	13.7/11.8	512	ALL	DAIKIN	DSC060

1 ADD

NOTES:

1. RTU'S HAVE BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS.
2. INSTALL OWNER PROVIDED CONDENSER HAIL GUARD.
3. PROVIDE IBC 2021 COMPLIANT 24" NEW ROOF CURB AND ATTACHMENTS FROM UNIT TO CURB AND CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:
   1) ATTACHMENT OF EQUIPMENT TO CURB.
   2) CURB TO STRUCTURE.
   3) CURB AND ATTACHMENT HARDWARE STRENGTH.
   REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS.
   EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 1 AND 2 LISTED ABOVE.
   BOTH, THE ENGINEERED ANALYSIS AND THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING AND PROJECT SITE AND STAMPED AND SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL DOCUMENTATION LISTED ABOVE IS PROVIDED ACCURATELY.

(PRE-PURCHASED) STISD - EDINBURG VFD SCHEDULE

MARK	EQUIPMENT SERVED	MOTOR HP	ENCLOSURE	ELECTRICAL V/P/Hz	MANUFACTURER & MODEL NUMBER	NOTES
VFD-E-AHU-1	CAFÉ AHU-1	7.5	NEMA 1	208/3/60	S1027H5T1E013CMD2	ALL
VFD-E-RTU-4	CAFE RTU-4	5	NEMA 3R	208/3/60	S102005T1E3R3CMD2	ALL
VFD-E-RTU-5	CAFE RTU-5	5	NEMA 3R	208/3/60	S102005T1E3R3CMD2	ALL
VFD-E-RTU-6	CAFE RTU-6	1.5	NEMA 3R	208/3/60	S1021H5T1E3R3CMD2	ALL

NOTES:

1. VFD HAS BEEN PRE-PURCHASED BY OWNER. REFER TO EQUIPMENT SUBMITTALS INCLUDED IN THE SPECIFICATIONS.
2. CONTRACTOR RESPONSIBLE FOR TRANSPORTING THE EQUIPMENT FROM OWNER'S WAREHOUSE TO JOBSITE. COORDINATE WITH OWNER.
3. COORDINATE WITH PERRY MECHANICAL SYSTEMS AND INCLUDE ALL ASSOCIATED COSTS IN THE BID.
4. PROVIDE DDC CONTROLS THROUGH AUTOMATED LOGIC. AUTOMATED LOGIC CONTRACTOR SHALL PROVIDE STARTUP AND PROGRAMMING OF ALL CONTROL SEQUENCES.

EQUIPMENT CONNECTION SCHEDULE

DESIGN	NEW MCA	EXISTING MOCP	NEW MOCP	VOLTAGE	EXISTING MEANS OF DISCONNECT	NEW MEANS OF DISCONNECT	EXISTING BRANCH CIRCUIT	NEW BRANCH CIRCUIT 60°C (COPPER)	POWER SOURCE
RTU-2	29.7	60	1) 40	208V/3-PHASE	REMOVE EXISTING	60A, 3PNF, 240V, NEMA 3R	REMOVE EXISTING	3/4" - 3#8 & #10G	DPC
RTU-3	38.7	60	1) 60	208V/3-PHASE	REMOVE EXISTING	60A, 3PNF, 240V, NEMA 3R	REMOVE EXISTING	1" - 3#4 & #10G	DPC
E-RTU-4	-	50	-	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	RETAIN EXISTING	-	MDP2
E-RTU-5	-	50	-	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	RETAIN EXISTING	-	MDP2
E-RTU-6	-	20	-	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	RETAIN EXISTING	-	MDP2
E-AHU-1	-	-	-	208V/3-PHASE	REMOVE EXISTING	2) VARIABLE FREQUENCY DRIVE	RETAIN EXISTING	-	DPC

GENERAL NOTES:

A. LOCATE EQUIPMENT MEANS OF DISCONNECT WITHIN EQUIPMENT SIGHT. DO NOT INSTALL BELOW DUCTWORK OR PLUMBING LINES.

B. PROVIDE NEW BRANCH CONNECTION FROM DISCONNECT TO EQUIPMENT. TYPICAL FOR ALL NEW HVAC EQUIPMENT.

NOTES:

1) REMOVE EXISTING CIRCUIT BREAKER AND PROVIDE NEW TO MATCH NEW MOCP. PROVIDE ALL UL LISTED UNIT FROM EXISTING MANUFACTURER (SQUARE "D"). MATCH EXISTING KAIC.

2) PROVIDED BY DIV.23; INSTALLED AND CONNECTED BY DIV.26.

PANELBOARD "DPC" (EXISTING): SQUARE "D" I-LINE, 1200A, 208Y/120V, 3Ø, 4W.
PANELBOARD "MDP2" (EXISTING): SQUARE "D" I-LINE, 800A, 208Y/120V, 3Ø, 4W.

MECHANICAL GENERAL NOTES:

1. DUCTWORK IS TO BE RETAINED. ORIENT EQUIPMENT TO MINIMIZE DUCTWORK MODIFICATIONS. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER-TIGHT. PROVIDE REQUIRED MODIFICATIONS FOR A COMPLETE AND SEAMLESS INSTALLATION.
2. PERFORM DUCTWORK TIE-IN FROM NEW UNITS TO EXISTING DUCTS VIA FLEX CONNECTORS AND TRANSITION DUCTWORK. FIELD-VERIFY EXISTING SPACE AVAILABILITY PRIOR TO BIDDING AND PRIOR TO SUBMITTING DUCTWORK SHOP DRAWINGS.
3. UNLESS OTHERWISE NOTED PROVIDE CONDENSATE DRAIN LINES WITH P-TRAPS, AND EXTEND TO NEAREST CONDENSATE DRAIN RECEPTOR. SUPPORT PIPING ON PIPING SUPPORTS BY MIRO INDUSTRIES, MODEL 1.5, OR EQUAL.
4. AFTER ABOVE CEILING WORK IS COMPLETE, REINSTALL CEILING SYSTEMS, AND COMPONENTS TO ORIGINAL CONDITION.

MECHANICAL KEYED NOTES:

1. INSTALL OWNER'S PRE-PURCHASED ROOFTOP UNIT (RTU) ON ROOF AND ITS ASSOCIATED ACCESSORIES. RECONNECT TO EXISTING DUCTWORK, UNLESS NOTED OTHERWISE.
2. PROVIDE NEW CONDENSATE PIPING IN THE SAME LOCATION AS EXISTING. INSULATED AND JACKETED AS SPECIFIED. SLEEVE ALL PENETRATION AND SEAL AIR TIGHT AROUND PIPE PENETRATIONS WITH FIRE-PROOF CAULKING. PROVIDE ESCUTCHEON PLATES AND FLASHING AROUND PENETRATIONS, BOTH INSIDE AND OUTSIDE TO PROVIDE A FINISHED LOOK. PROVIDE CONDENSATE LINE SUPPORTS PER DETAILS AND SPECIFICATIONS.
3. CONTROLS CONTRACTOR SHALL INSTALL PRE-PURCHASED VFDS, COORDINATE WITH ALC CONTROLS FOR COMPLETE SYSTEM INTEGRATION, PERFORM START-UP AND COMMISSIONING, INCLUDING COMMUNICATIONS SETUP, POINT VERIFICATION, PROGRAMMING COORDINATION, AND FUNCTIONAL TESTING TO ENSURE PROPER OPERATION.
4. PROVIDE NEW DUCTWORK CONNECTIONS BETWEEN THE NEW RTUS AND THE EXISTING DUCTWORK TO CREATE A FULLY OPERATIONAL SYSTEM AS SCHEDULED.

1 ADD

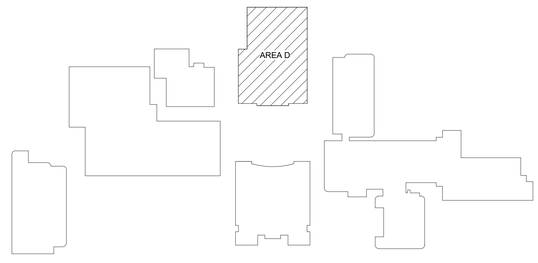
5. PROVIDE NEW TEMPERATURE AND CO2 SENSORS IN SAME LOCATION AS EXISTING. MECHANICAL CONTRACTOR TO LOCATE EXISTING TEMPERATURE SENSORS TO REPLACE FOR NEW.
6. CONTROLS CONTRACTOR SHALL INSTALL PRE- PURCHASED NEMA-1 VFDS, COORDINATE WITH ALC CONTROLS FOR COMPLETE SYSTEM INTEGRATION, PERFORM START-UP AND COMMISSIONING, INCLUDING COMMUNICATIONS SETUP, POINT VERIFICATION, PROGRAMMING COORDINATION, AND FUNCTIONAL TESTING TO ENSURE PROPER OPERATION.
7. PROVIDE PROTECTIVE GUARDRAIL BY STRUCTURAL.

1 ADD

8. INSTALL PRE-PURCHASED RTU ON NEW 24" ROOF CURB AS SCHEDULED. ORIENT RTUS TO OPTIMIZE DUCTWORK. SEAL ALL OPENINGS AND ENSURE THAT INSTALLATION IS WEATHER TIGHT.

ELECTRICAL KEYED NOTES

1. APPROXIMATE LOCATION OF EXISTING PANELBOARD SERVING NEW HVAC EQUIPMENT.
2. CONNECT NEW HVAC EQUIPMENT. SEE EQUIPMENT CONNECTION SCHEDULE.
3. CONNECT NEW VARIABLE FREQUENCY DRIVE. SEE EQUIPMENT CONNECTION SCHEDULE.



EDINBURG KEYPLAN

No.	REVISIONS	BY
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STISD HVAC Project 26-27

MERCEDES, OLMITO, & EDINBURG, TEXAS

STATE OF TEXAS
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AIR DEVICE & DIFFUSER SCHEDULE

SUPPLY AIR DIFFUSER (SD-1)					
TITUS OMNI-AA NC < 20			DESCRIPTION: ALUMINUM SQUARE CEILING DIFFUSER, FIELD VERIFY CEILIING TYPE, COLOR WHITE WITH ROUND NECK AND FULL FACE		
CLG. MODULE SIZE INCHES	FACE SIZE INCHES	ROUND NECK SIZE	FLEX DUCT SIZE	DIFFUSER DIFFUSION PATTERN & CFM	NOTES
24 X 24	24 X 24	TO MATCH NC CRITERIA	SEE PLAN	SD1-CFM	1-4,6

RETURN AND TRANSFER AIR GRILLE (RG-1 & TG-1)				
TITUS 50F NC < 20			DESCRIPTION: ALUMINUM GRID EGGCRATE RETURN GRILLE WITH BORDER TYPE 3 (LAY-IN).	
CFM RANGE	CLG. MODULE SIZE INCHES	NOMINAL DUCT SIZE INCHES (INLET)	DIFFUSER DIFFUSION PATTERN & CFM (1 ADD)	NOTES (1 ADD)
0 - 2500	24 X 24	18 X 18	RG1-CFM (RETURN AIR GRILLES ONLY)	1,4,6
0 - 2500	24 X 24	18 X 18	TG1-CFM (TRANSFER AIR GRILLES ONLY)	1,4,6

NOTES:

1. PROVIDE MANUFACTURER'S STANDARD BAKED WHITE ENAMEL FINISH.
2. PROVIDE FULL SIZE BACK PAN WITH DUCT ADAPTER.
3. INSULATE BACK PAN ON ALL SUPPLY AIR DIFFUSERS AND GRILLES.
4. PROVIDE MOUNTING FRAME TYPE COMPATIBLE WITH SCHEDULED CEILING OR WALL (SURFACE OR LAY-IN).
5. PROVIDE BALANCING DAMPER ON ALL EXHAUST GRILLES.
6. AIR DEVICES SHALL MATCH ARCHITECTURAL FINISH. COORDINATE COLOR WITH ARCHITECT.

ZONE DAMPER SCHEDULE

PROJECT: WORLD SCHOLAR BUILDING STISD EDINBURG

MARK	CAPACITY RANGE CFM	DAMPER DIAMETER SIZE (IN.)	DAMPER RECTANGULAR SIZE (IN.)	MINIMUM FLOW (%)	MANUFACTURER MODEL	PRESSURE DROP	NOTES
ZD-1	0 - 500	-	10 x 10	30%	GREENHECK-VCD-33 ALC - ACTUATOR	.013 IN.WG	ALL
ZD-2	0 - 250	8	-	30%	GREENHECK-VCDR-63 ALC - ACTUATOR	.004 IN.WG	ALL
ZD-3	0 - 250	8	-	30%	GREENHECK-VCDR-63 ALC - ACTUATOR	.004 IN.WG	ALL
ZD-4	0 - 250	8	-	30%	GREENHECK-VCDR-63 ALC - ACTUATOR	.004 IN.WG	ALL
ZD-5	0 - 1100	-	14 x 12	30%	GREENHECK-VCD-33 ALC - ACTUATOR	.017 IN.WG	ALL
ZD-6	0 - 400	-	8 x 10	30%	GREENHECK-VCD-33 ALC - ACTUATOR	.018 IN.WG	ALL
ZD-7	0 - 610	-	12 x 10	30%	GREENHECK-VCD-33 ALC - ACTUATOR	.012 IN.WG	ALL
ZD-8	0 - 925 (1 ADD)	-	14 x 14 (1 ADD)	30%	GREENHECK-VCD-33 ALC - ACTUATOR	.011 IN.WG	ALL
ZD-9	0 - 975	-	14 x 14 (1 ADD)	30%	GREENHECK-VCD-33 ALC - ACTUATOR	.006 IN.WG	ALL
ZD-10	0 - 1100	-	14 x 14	30%	GREENHECK-VCD-33 ALC - ACTUATOR	.012 IN.WG	ALL
ZD-11	0 - 1500	-	16 X 14	30%	GREENHECK-VCD-33 ALC - ACTUATOR	.015 IN.WG	ALL

NOTES:

1. PROVIDE UNIT WITH 24V TRANSFORMER AND FUSIBLE INTEGRAL DISCONNECT.
2. COORDINATE INLET AND OUTLET DIMENSIONS WITH PLANS.
3. COORDINATE WITH DRAWINGS FOR RIGHT OR LEFT-HAND CASING CONFIGURATION PRIOR TO ORDERING.

MECHANICAL GENERAL NOTES:

1 ADD
1. NOT USED.
2. PERFORM DUCTWORK TIE-IN FROM EXISTING UNITS TO NEW DUCTWORK VIA FLEX CONNECTORS AND TRANSITION DUCTWORK. FIELD-VERIFY EXISTING SPACE AVAILABILITY PRIOR TO BIDDING AND PRIOR TO SUBMITTING DUCTWORK SHOP DRAWINGS.

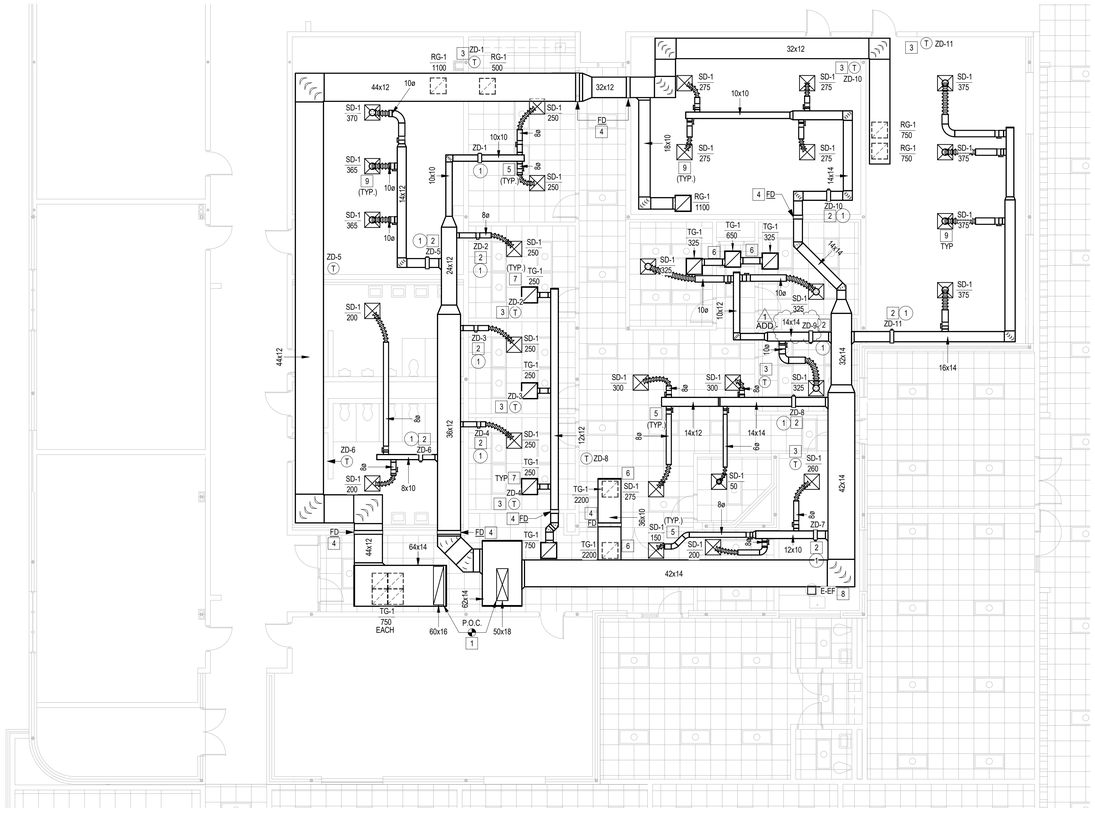
1 ADD
3. NOT USED.
4. AFTER ABOVE CEILING WORK IS COMPLETE, REINSTALL CEILING SYSTEMS, AND COMPONENTS TO ORIGINAL CONDITION.

MECHANICAL KEYED NOTES:

1. EXISTING ROOFTOP UNIT TO REMAIN, CONNECT NEW DUCTWORK TO EXISTING UNIT CONNECTION. FIELD VERIFY EXACT UNIT LOCATION, ROOF PENETRATIONS, AND NEW DUCT ROUTING TO AVOID EXISTING STRUCTURAL BEAMS.
2. PROVIDE NEW GREENHECK ZONE DAMPER WITH ALC ACTUATOR. PROVIDE ALL REQUIRED CONTROLS AND ACCESSORIES FOR A COMPLETE INSTALLATION AS INDICATED ON PLANS.
3. PROVIDE NEW THERMOSTAT CONTROLS FOR NEW ZONE DAMPERS LOCATED IN DUCTWORK.
4. PROVIDE 1-1/2 HOUR RATING, DYNAMIC FIRE DAMPER EQUAL TO RUSKIN DIBD2 AND DUCT ACCESS DOOR EQUAL TO RUSKIN ADH-22 FOR RECTANGULAR DUCT, ACUDOR RD FOR ROUND DUCT. PROVIDE FIRE DAMPER AT WALL PENETRATIONS AS SHOWN. : ACCESS PANEL SHALL BE IN CEILING SPACE. (TYPICAL)
5. PROVIDE ROUND SPIRAL LOCK-SEAM DUCT. LONGITUDINAL SEAM TYPE IS NOT ACCEPTABLE. (TYPICAL)
6. PROVIDE ACOUSTICAL LINING FOR TRANSFER DUCT. SEE SPECIFICATIONS. (TYPICAL)
7. PROVIDE FABRICATED RETURN AIR PLENUM BOX ABOVE RETURN GRILLE. INSTALL ACOUSTICAL LINING IN PLENUM BOX. CONNECT WITH FLEX DUCT TO MAIN RETURN TRUNK DUCT WHERE SHOWN ON DRAWING AND INSTALL BALANCING DAMPER WHERE INDICATED. FOR AREAS WHERE FLEX DUCT IS NOT SHOWN, PROVIDE ACOUSTICAL LINING FOR CONNECTION TO MAIN RETURN TRUNK DUCT. SEE DETAIL SHEET. (TYPICAL)
8. EXISTING EXHAUST FAN TO REMAIN. LOCATE AND PROTECT DURING ALL PHASES OF CONSTRUCTION.
9. FIELD COORDINATE EXACT DIFFUSER/GRILLE LOCATION WITH EXISTING CEILING GRIDS.

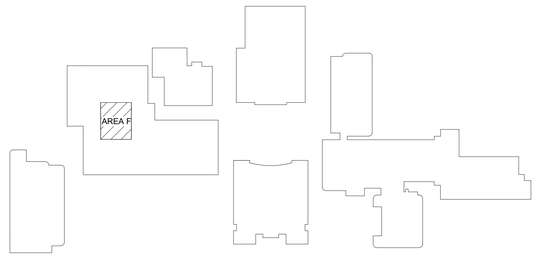
ELECTRICAL RENOVATION KEYED NOTES:

1. CONNECT NEW ZONE DAMPER, RETAIN AND REUSE EXISTING BRANCH CIRCUIT. CONTRACTOR TO FIELD VERIFY EXISTING POWER SOURCE -TYPICAL.



01 1 st Floor Mechanical Plan World Scholar - Alternate
SCALE: 1/8" = 1'-0"

NORTH



EDINBURG KEYPLAN

No.	REVISIONS	BY
1 ADD	10-30-2026	ETHOS

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STISD HVAC Project 26-27

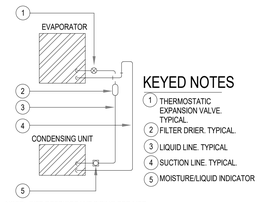
MERCEDES, OLMITO, & EDINBURG, TEXAS

STATE OF TEXAS
CESAR A. GONZALEZ
108611
LICENSED PROFESSIONAL ENGINEER
07.31.2026

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Architects-Planners
Interior Designers

Date:	07/31/2026
Scale:	As Noted
Project Architect:	David Monreal, AIA
Drawn By:	FJR
Job No.	25V131
Sheet:	ME8.02

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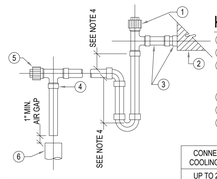
KEYED NOTES

1. THERMOSTATIC EXPANSION VALVE. TYPICAL.
2. FILTER DRIER. TYPICAL.
3. LIQUID LINE. TYPICAL
4. SUCTION LINE. TYPICAL.
5. MOISTURE/LIQUID INDICATOR

NOTE: SIZE REFRIGERANT PIPING PER MFR. RECOMMENDATION.

01 REFRIGERANT PIPING DIAGRAM DETAIL

SCALE: NOT TO SCALE



KEYED NOTES

1. CLEAN OUT.
2. DRAIN PAN.
3. DRAIN LINE SHALL BE AT LEAST OF THE SAME SIZE AS THE DRAIN PAN SIZE AS THE DRAIN PAN
4. PITCH.
5. CLEAN OUT.
6. OPEN DRAIN.

NOTES:

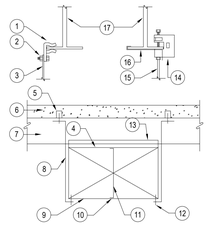
1. MANUALLY PRIME TRAP BEFORE START UP.
2. SUPPORT DRAIN LINES TO PREVENT SAG.
3. ALLOW SUFFICIENT SPACE BELOW PAN FOR TRAP AND PITCH TO DRAIN.
4. COORDINATE WITH MANUFACTURER OF AHU.

CONNECTED COOLING LOAD	MIN. * PIPE SIZE
UP TO 2 TON	3/4"
2-5	1"
5-30	1-1/4"
30-50	1-1/2"
50-160	2"
160-300	3"
300-430	4"

* NOT SMALLER THAN OUTLET SIZE.

02 CONDENSATE DRAIN TRAP PIPE DETAIL

SCALE: NOT TO SCALE



KEYED NOTES

1. FRICTION CLAMP.
2. NUT & BOLT.
3. HANGER STRAP.
4. ARRANGE SEAM JOINTS TO MISS BEAMS.
5. INSERT-DO NOT INSERT INTO BOTTOM OF BEAMS OR JOISTS.
6. CEILING SLAB.
7. CONSTRUCTION BEAM.
8. 1" X 18 GA. STRAP HANGER (ONE HANGER ON DUCTS 31" AND UP).
9. DUCT WITH FLAT SEAM CONSTRUCTION (STANDARD "S" SLIP SNUG TO BEAM).
10. 3/16" SD 64BS POP RIVETS (TWO EACH AT TOP & BOTTOM OF VERTICAL STIFFENER).
11. 1-1/2" X 16 GA. STEEL BAR SUPPORT LOCATED CLOSE TO STIFFENER: DUCT WIDTH TO 24" - NOT REQUIRED DUCT WIDTH 25" TO 47" - ONE (1) REQUIRED.
12. #6 X 3/8" SIM SCREW (TYP).
13. ANGLE STIFFENER FOR DUCT WIDTH 25" TO 40": 1" STANDING "S" OR 1" X 1" X 1/2" ANGLE.
14. C-CLAMP WITH RETAINING CLIP OR WITH LOCK NUT (OPTIONAL).
15. HANGING ROD.
16. RETAINING CLIP.
17. STRUCTURAL.

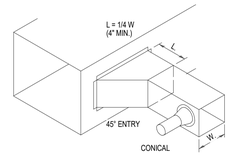
NOTE:
FOLLOW SMACNA GUIDELINES FOR DUCT SUPPORT.

03 DUCT SUPPORT

SCALE : NOT TO SCALE

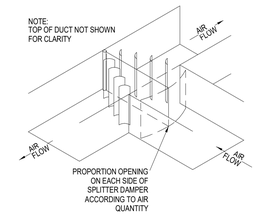
NOTES:

1. FIT ALL CONNECTIONS TO AVOID VISIBLE OPENINGS & SECURE SUITABLY FOR THE PRESSURE CLASS.
2. ADDITIONAL MECHANICAL FASTENERS REQ'D. FOR 4" W.G. & OVER.
3. DO NOT EXPOSE LINER EDGES ON LINED DUCT CONNECTIONS.
4. ALL OPENINGS TO BE CUT ACCURATELY IN SHAPE & SIZE.



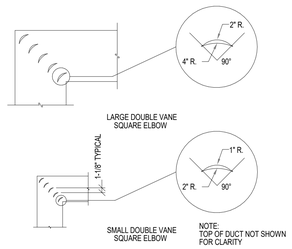
04 BRANCH CONNECTION DETAIL

SCALE: NOT TO SCALE



TYPICAL 05 SPLITTER DAMPER

SCALE : NOT TO SCALE

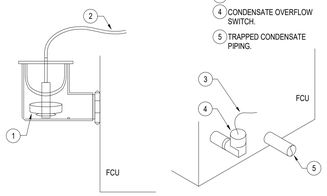


06 TYPICAL VANED DUCT ELBOWS DETAIL

SCALE: NO TO SCALE

KEYED NOTES

1. FLOAT SWITCH.
2. INTERLOCK WITH FCU.
3. WIRING.
4. CONDENSATE OVERFLOW SWITCH.
5. TRAPPED CONDENSATE PIPING.

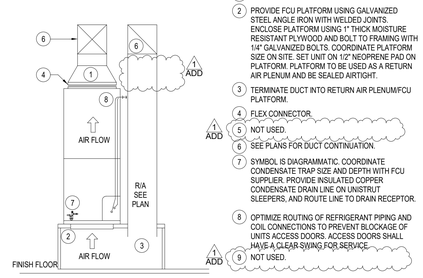


CONDENSATE 07 OVERFLOW SWITCH DETAIL

SCALE : NOT TO SCALE

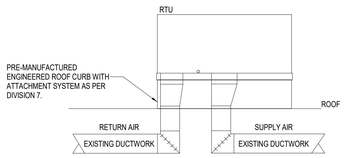
KEYED NOTES:

1. PROVIDE DUCTWORK TRANSITION.
2. PROVIDE FCU PLATFORM USING GALVANIZED STEEL ANGLE IRON WITH WELDED JOINTS. ENCLOSE PLATFORM USING 1" THICK MOISTURE RESISTANT PLYWOOD AND BOLT TO FRAMING WITH 1/4" GALVANIZED BOLTS. COORDINATE PLATFORM SIZE ON SITE. SET UNIT ON 1/2" NEOPRENE PAD ON PLATFORM. PLATFORM TO BE USED AS A RETURN AIR PLENUM AND BE SEALED AIRTIGHT.
3. TERMINATE DUCT INTO RETURN AIR PLENUM/FCU PLATFORM.
4. FLEX CONNECTOR.
5. NOT USED.
6. SEE PLANS FOR DUCT CONTINUATION.
7. SYMBOL IS DIAGRAMMATIC. COORDINATE CONDENSATE TRAP SIZE AND DEPTH WITH FCU SUPPLIER. PROVIDE INSULATED COPPER CONDENSATE DRAIN LINE ON UNISTRUT SLEEPERS, AND ROUTE LINE TO DRAIN RECEPTOR.
8. OPTIMIZE ROUTING OF REFRIGERANT PIPING AND COIL CONNECTIONS TO PREVENT BLOCKAGE OF UNITS ACCESS DOORS. ACCESS DOORS SHALL HAVE A CLEAR SWING FOR SERVICE.
9. NOT USED.



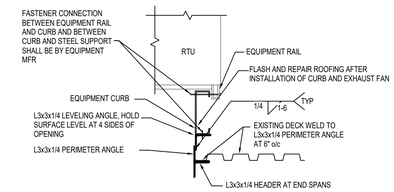
08 FCU SCHEMATIC DETAIL

SCALE: NOT TO SCALE



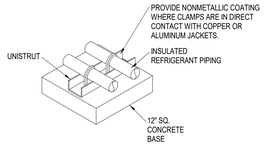
09 ROOFTOP UNIT DETAIL

SCALE : NOT TO SCALE



10 TYPICAL SUPPORT DETAIL

SCALE : NOT TO SCALE

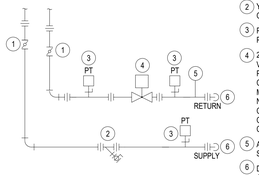


REFRIGERANT PIPING 11 SUPPORT DETAIL

SCALE : NOT TO SCALE

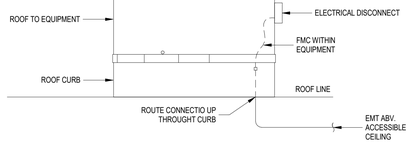
KEYED NOTES

1. 2-1/2" & LARGER BUTTERFLY VALVES FOR SHUTOFF. LINE SIZE: BALL VALVES FOR 2" AND BELOW
2. Y STRAINER WITH 3/4" BALL VALVE ON DISCHARGE
3. PRESSURE/TEMPERATURE TEST PLUG WITH COCK AND CAP
4. 2-WAY MODULATING DDC CONTROL VALVE WITH ELECTRIC ACTUATOR, PROVIDED BY CONTROLS CONTRACTOR INSTALLED BY MECHANICAL CONTRACTOR. PROVIDE NEMA 4X RATED ACTUATOR ON CHW CONTROL VALVE INSTALLED OUTDOORS. COORDINATE WITH CONTROLS CONTRACTOR.
5. AUTOMATIC AIR VENT W/MANUAL SHUT-OFF
6. DIELECTRIC STEEL/COPPER CONNECTION AT UNIT



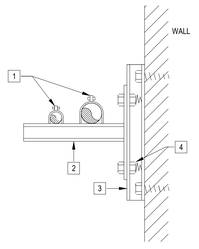
2-WAY VALVE CHILLED WATER COIL CONNECTION SCHEMATIC (TYP.) 12

SCALE: NOT TO SCALE



RTU CONNECTION DETAIL 13

SCALE: NOT TO SCALE

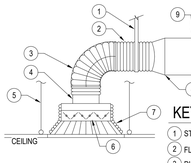


KEYED NOTES:

1. PROVIDE CONDUIT CLAMPS.
2. PROVIDE GALVANIZED UNISTRUT WALL BRACKET.
3. PROVIDE RAMSET OR BOLT GALVANIZED UNISTRUT TO WALL.
4. PROVIDE SELF HOLDING CLAMPING NUT WITH SPRING

RACEWAY RUNS SUPPORT DETAIL 14

SCALE: NOT TO SCALE

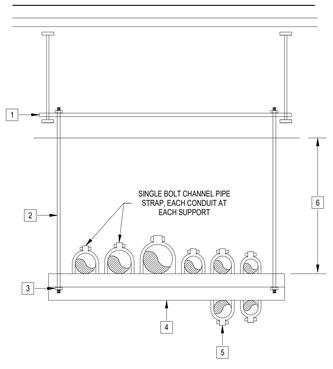


KEYED NOTES

1. STRAP HANGER.
2. FLEX SUPPLY DUCT, TYP.
3. DUCT COLLAR (TO RETAIN ELBOW SHAPE).
4. ROUND NECK ADAPTOR.
5. HANGER. TYP.
6. OPPOSED BLADE DAMPER (ALTERNATIVE), TYP.
7. INSULATION, TYP.
8. RECT. TO ROUND TRANSITION, TYP.
9. VOLUME DAMPER AT TAKE-OFF (PREFERED LOCATION), TYP.

15 CEILING DIFFUSER SUPPORT

SCALE : NOT TO SCALE

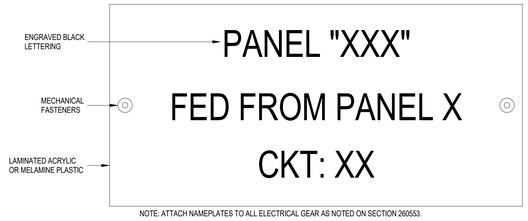


KEYED NOTES:

1. PROVIDE UNISTRUT STRUCTURAL CHANNEL SECURED TO JOIST AT BOTH ENDS.
2. PROVIDE 1/2" GALVANIZED ROD MINIMUM.
3. PROVIDE LOCKNUT
4. PROVIDE GALVANIZED UNISTRUT 8'-0" O/C MAXIMUM.
5. 0'-1" MAXIMUM SIZE ON BOTTOM OF UNISTRUT.
6. VARIES.

HORIZONTAL RACEWAYS SUPPORT DETAIL 16

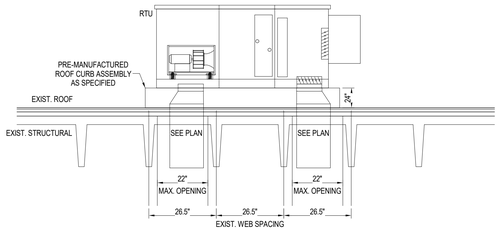
SCALE: NOT TO SCALE



NOTE: ATTACH NAMEPLATES TO ALL ELECTRICAL GEAR AS NOTED ON SECTION 260553.

EQUIPMENT IDENTIFICATION LABEL DETAIL 17

SCALE: NOT TO SCALE



18 KITCHEN ROOFTOP UNIT SECTION DETAIL

SCALE : NOT TO SCALE

No.	REVISIONS	BY
1 ADD	10-30-2026	ETHOS

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STISD HVAC Project 26-27

MERCEDES, OLMITO, & EDINBURG, TEXAS



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Interior Designers

Date: 07/31/2026
Scale: As Noted
Project Architect: David Monreal, AIA
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